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Sketch of the Argentine Republic.

GEOGRAPHICAL POSITION.—The Argentine Republic is situated in the southern extremity of South America, between the 22nd. and 55th. parallels of South latitude and between the meridians of $54^{\circ} 20'$ and $73^{\circ} 30'$ of longitude West of Greenwich, the greater part of its territory thus lying within the temperate zone.

BORDERING COUNTRIES.—It is bounded on the North by Bolivia Paraguay and Brazil, on the East by Uruguay and on the West by Chili.

EXTENT OF BORDER LIMITS.—Land: on the West about 4,800 kilometers and on the North 1,600 kilom.; Fluvial: on the East 1,200 kilom.; Coast of the estuary of the River Plate and of the Atlantic Ocean 2,600 kilometers. Total: 10,200 kilometers in extent.

Its shape is that of an elongated triangle whose vertex is situated at the confluence of the Pacific and Atlantic oceans, and its base on the 22nd. parallel of South latitude, presenting the singular feature that its Eastern boundary is composed entirely of maritime or fluvial coasts, in direct contact with the world's commerce by means of numerous ports of easy access, amongst which we may name, from South to North—on the Atlantic coast: Gallegos, Santa Cruz, San Julian, Comodoro Rivadavia, Camarones, Puerto Madryn, San Blas, San Antonio, Quequén, etc.;

on the river Uruguay: Concordia, Gualeguaychú, Concepción, etc.; and on the river Paraná: Campana, San Pedro, Baradero, San Nicolás, Paraná, Santa Fé, Corrientes, Posadas, Resistencia, etc.; which together with Bahía Blanca, La Plata, Buenos Aires and Rosario form so many more outlets for the increasing requirements of Argentine commerce.

Its capital, Buenos Aires, whose geographical position is found on $34^{\circ} 36' 30''$ South latitude and $58^{\circ} 22' 15''$ of longitude West of Greenwich, has its ample port situated not more than, on an average, eighteen days voyage from the *European and North American* ports of the Atlantic.

OROGRAPHY.—The Cordillera of the Andes which runs throughout the whole extent of the Argentine Republic and forms its Western limit is,



Mountain Channel—Magallan Street

by far, the most important mountain system of the country. Commencing at the extreme South of the Republic in the shape of low ranges of hills, isolated by the waters of the Pacific which, in addition, have invaded its valleys forming an immense number of picturesque channels, it little by little becomes of greater height and breadth until it forms in

the North the elevated table-lands of Atacama and Jujuy, with a mean height of 4,000 meters above sea level.

The abundant vegetation which covers its lower slopes in the South, and which already has given rise to lucrative workings, disappears on passing beyond the 37° of latitude and in the same manner the snow, in the North, has only a permanent character on the summits of the most elevated peaks, many of which, such as Tupungato, Aconcagua, the snow-capped mountains of Cachi and Acay, are above 6,000 meters in height.

Another interesting feature of the Southern part of the Cordillera, is the existence of deep gullies which run through it and allow the passage of important rivers formed by the waters of the Eastern slopes, which otherwise would have found an outlet towards the Atlantic Ocean.

The remainder of the country, with exception of the mountainous regions of the North-West of the Republic and the South-East of the province of Buenos Aires, and further that portion formed by the provinces of Entre Rios, Corrientes and the territory of Misiones, which from its position has received the name of the Argentine Mesopotamia, appears in the form of a vast plain which extends from the foot of the Andes to its Eastern shores, but in which, nevertheless, we can distinguish in bold outlines three very distinct zones, which are:

1st. The zone occupied by the Eastern portion of Jujuy, Salta and Tucuman, the territory of the Chaco, the province of Santiago del Estero, and the North of Santa Fé; all of it being very warm and heavily wooded.

2nd. The Pampa, properly so called, most notable on account of uniformity of level and the almost total absence of trees, but covered, however, in its greater part by excellent pastures. This is the temperate zone « par excellence » and it comprises the Southern and Eastern district of the province of Córdoba, the Southern part of the provinces of Santa Fé, Mendoza and San Luis, the territory of the Pampa and the province of Buenos Aires.



Rocking Stone—Tandil

3rd. Patagonia, comprises the territories of the Rio Negro, Chubut and Santa Cruz and slopes down from the Andes in three successive inclines, a tranverse section of which would show them as so many immense steps of some enormous amphitheatre.

Looking at the mountainous region of the North-west we can clearly distinguish a series of parallel ridges of a general North to South direction called « sierras » (ranges), many of which have already acquired an excellent reputation on account of their benign climate their mineral riches, or from the fertile valleys encompassed by them.

Amidst the first, the Sierras of Córdoba figure prominently by reason of their well known sanitary stations.



La Calavera (skull) Mendoza

further those of Santa Maria and Catamarca in the province of that name, and again those of Calchaquí, San Carlos and Lerma and the

Amongst the second, we may mention the Sierra of Famatina in the province of Rioja, the Atajo range in Catamarca, the Tontal and Gualilan in San Juan and the Sierra of Uspallata in Mendoza, and amid the third, the Aconquija system with the ranges of Ancasti, Ambato, Zenta, etc., which surround the beautiful valleys of Tafi and Aconquija in Tucuman,

glens of the Toro, Escoipe and Guachipas in the province of Salta, and lastly those of the province of Jujuy, and amongst these we have that of Humahuaca, an opening through which at the present moment the rails of Argentina are being pushed forward, their future destiny being to carry to our ports the products of the Bolivian table-land.

In conclusion, we may mention the smaller ranges of the territory of Misiones whose elevation does not exceed 400 meters, and also the hills of the province of Buenos Aires, known by the name of Curamalal, Pillahuincó, Ventana, the ranges of Balcarce and Tandil, all of which have a general North-west to South-east direction and contain valuable quarries of building material.

HYDROGRAPHY.—It is relatively easy to classify the numerous and mighty rivers which course through the territory of the Republic, as well as the lakes which give rise to some of them, or which, on the other hand, they form in their passage.

Above all, we have the marvellous hydraulic basin of the Plate, common to the Republics of Uruguay, Paraguay and Brazil, but in a greater degree to Argentina, seeing that through its territory flow the lower and central portions of the water-courses which form the basin.



Yguazú Falls, — Upper Paraná

This basin is formed by the river Plate, the widest in the world and justly considered as the entrance gate to South America; the rivers Uruguay and Paraná which debouch into the Plate after a course of 1,500 kilometers in the first case and of 4,500 in the second; the river Paraguay, which forms the axis of the system and joins the Paraná at

2,000 kil. from its source; the Pilcomayo and Bermejo rivers which rise in Bolivia and fall into the Paraguay after having crossed the territory of the Chaco; the Salado del Norte river which comes down from the valleys of Santa Maria and Calchaqui and runs through the provinces of Santiago del Estero and Santa Fé to discharge into the Paraná near the city

of Santa Fé; the river Carcaraña, another affluent of the Paraná, formed by the union of the Tercero and Cuarto rivers which have their sources in the Córdoba range; and in addition other rivers of less importance, such as the Arrecifes, the Lujan and the Conchas, all of which rise in the province of Buenos Aires and are affluents of the river Paraná and the river Plate.

Following this, we have the central hydrographic basin within the limits of the above, formed by a vast depression that in its lowest part is occupied by the lakes of Porongos and Mar Chiquita, into which flow: the river Dulce which rises in the Aconquija range, crosses the provinces of Tucuman and Santiago del Estero and debouches into the Porongos lake and the rivers Primero and Segundo which have their sources in the hills of Córdoba and fall into Mar Chiquita lake.

The hydrographic basin of the Colorado river commences in the North of Rioja with the rivers Jagüel, Jachal and Vinchina which after forming the Bermejo are lost in the lagunes of Huanacache together with the rivers San Juan and Mendoza; and in succession to these we have the streams that run from North to South, the Tunuyán, the Diamante and the Atuel, which join their waters with the Desaguadero or, as we may call it, the channel for the discharge of the lakes of Huanacache, and this conjunction flows on towards the South under the names of Salado, Chadileuvú and Curico until it falls into the Colorado, having on its course southwards formed many lakes and marshes; and lastly the Grande and Barrancas that in combination form the Colorado river, which having traversed the Pampa from East to West debouches into the Atlantic Ocean a little to the South of the estuary of Bahía Blanca. (1)

The basin of the Rio Negro is also of great importance, being formed by the streams which flow down from the Cordillera of the Andes between 37° and 41° South latitude. This basin, like all the others that are found further South, has the peculiarity of encircling within it a large number of lakes which, whilst constituting one of the principal attractions of the Cordillera of the Andes, have a beneficial influence on the regulation of the waters. We may mention amongst the most important the lagunes of Cabiahue, in the course of the river Agrio, an affluent of the Neuquén, the lakes Moquehue and Aluminé, the Quillén the Tromen, the Heuchu-Lafquen, Lolog, Trafal and the Nahuel-Huapí, whose natural drainage is the river Limay which, together with the Neuquén, forms the Rio Negro, the mouth of the main river on the Atlantic being a little to the South of the Rio Colorado. The island of Choele-Choe renowned for its great fertility is about mid-way between the confluence of the Limay and Neuquén and the sea, but nearer to the former.

(1) The Bebedero lake in the province of San Luis forms part of the same basin.

The remaining lakes of the Cordillera of greater importance are: the La Plata and Fontana, whose drainage is effected by means of the river Senguer, an affluent of the Chubut; the beautiful lakes of Buenos Aires and San Martin, whose waters make their way through the Cordillera of the Andes to fall into the Pacific in the same manner as do those of the lake Lacar and many others further North; the Argentino and Viedma lakes whose drainage forms the river Santa Cruz, one of the most important in Patagonia, which, with the Deseado and the Gallegos, complete the hydrographic system of this region. (2)

The most important rivers of the province of Buenos Aires are: the Salado del Sur, whose valley is considered as being only a continuation of that of the Rio Quinto which flows down from the "Sierras" of San Luis. This river gives rise to the important lagunes of Chañar, Mar Chiquita and Gomez and receives, before falling into the bay of San Borombón, the superfluity of waters of many lagunes, amongst which that of Chascomús is worthy of mention.

The remaining rivers of that province which debouch directly into the ocean are; the San Borombón, Quequén Grande, Quequén Salado, Napostá, Sauce Grande and Sauce Chico.

As regards the Argentine Mesopotamia, it is, on account of the impermeability of its soil, a region traversed by numerous rivers and streams which flow into the Paraná and Uruguay. The province of Corrientes, in particular, contains the immense lagunes of Iberà and Maloya, up to the present almost unexplored.

To conclude this hydrographic sketch of the Republic we may call attention to the existence of a certain number of depressions, occupied by salt lakes and deposits of salt, that constitute so many additional basins into which there flow streams of brackish water, which, on evaporation, deposit the salt they held in solution, forming real natural salt pans, some of them being worked to supply the requirements of the inhabitants of the interior. Amongst these we may mention the Salina Grande (Great Salt Pan) on the borders of the provinces of Rioja, Santiago del Estero and Córdoba, the salt pans of Catamarca, Rioja and San Juan, the Salinas Grandes situated between Salta and Jujuy, which supply the North of the Republic with salt, and, above all, the salt deposits of Antofalla, Hombre Muerto, Cuacharí, Arizaro, Rincón, etc. in the high tablelands of Atacama and Jujuy, which are doubly interesting on account of the deposits of borax which they contain. There are, also, distributed throughout the whole Andine region, numerous water-courses which are taken advantage of near their sources for the irrigation of the soil but

(2) Others also deserving of mention are the lakes Musters and Colhué, formed in the course of the river Senguer by a depression situated near the coast of the Atlantic.

which, their course being through immense zones of permeable land, are quickly lost in the sub-soil. Amongst these we may mention, as examples, the rivers Tala, the Valle and the Paclín which give life to the beautiful valley of Catamarca and to the city of that name.

Córdoba Mountains



Los Paredones (The Walls) — Capilla del Monte

Area and Population.

The Argentine Republic consists of fourteen provinces and ten territories, containing the population and area of land shown in the following table :

PROVINCES AND TERRITORIES	AREA square kilometers 1903	POPULATION		
		NATIONAL CENSUS		National Demographic Bureau
		in 1869	in 1895	1902
Buenos Aires Federal district	186	187,346	663,854	865,490
» Province	305,121	307,761	921,168	1,208,937
Santa Fé »	131,906	89,117	397,188	576,385
Entre Rios »	74,571	134,271	292,019	354,596
Corrientes »	84,402	129,023	239,618	288,426
Córdoba »	161,036	210,508	351,223	436,859
San Luis »	73,923	53,294	81,450	93,976
Sant. del Estero »	103,016	132,898	161,502	184,194
Mendoza »	146,378	65,413	116,136	152,720
San Juan »	87,345	60,319	84,251	97,803
La Rioja »	89,498	48,746	69,502	79,442
Catamarca »	123,138	79,962	90,161	100,613
Tucumán »	23,124	108,953	215,742	251,857
Salta »	161,099	88,933	118,015	132,613
Jujuy »	49,162	40,379	49,713	54,287
Misiones Territory	29,229	.	33,163	36,286
Formosa »	107,258		4,829	5,844
Chaco »	136,635		10,422	12,958
Pampa »	145,907		25,914	48,391
Neuquén »	109,703		14,517	16,874
Rio Negro »	196,695	93,291	9,241	14,947
Chubut »	242,039		3,748	4,911
Santa Cruz »	282,750		1,058	1,631
Tierra del Fuego »	21,499		477	1,042
Los Andes »	64,900		—	1,166
	2,950,520	1,830,214	3,954,911	5,022,248

The approximate population of the capitals of provinces and territories, is as follows :

Province of Buenos Aires	Capital, La Plata	50,000
» » Santa Fé	» Santa Fé	32,000
» » Entre Rios	» Paraná	26,000
» » Corrientes	» Corrientes	17,000
» » Córdoba	» Córdoba	55,000
» » San Luis	» San Luis	10,000
» » Santiago del Estero	» Santiago del Estero	10,000
» » Mendoza	» Mendoza	30,000
» » San Juan	» San Juan	11,000
» » La Rioja	» La Rioja	7,000
» » Catamarca	» Catamarca	8,000
» » Tucumán	» Tucumán	36,000
» » Salta	» Salta	17,000
» » Jujuy	» Jujuy	4,000
Territory » Misiones	» Posadas	5,000
» » Formosa	» Formosa	2,000
» » Chaco	» Resistencia	2,000
» » Pampa	» Gral. Acha	2,000
» » Neuquén	» Chos-Malal	600
» » Rio Negro	» Viedma	1,500
» » Chubut	» Rawson	700
» » Santa Cruz	» Puerto Gallegos	200
» » Tierra del Fuego	» Ushuaia	300
» » Los Andes	» S. Ant. de los Cobres	200

In addition to the capitals of provinces and territories the following towns may be mentioned as of importance on account of the number of inhabitants :

Province of Buenos Aires.—Arrecifes, Baradero, Nic. Avellaneda, Campana, Cañuelas, Chacabuco, Chascomús, Chivilcoy, Junin, Lobos, Lomas de Zamora, Luján, Mercedes, Morón, Mar del Plata, Necochea, Olavarria, Pergamino, Salto, San Fernando, San Nicolás, San Pedro, Zarate, Nueve de Julio, Azul, Bragado, Dolores, Bahía Blanca, Veinte y cinco de Mayo, Tandil; the population ranging from 5,000 to 20,000 persons.

Province of Santa Fé.—Rosario (125,825 inhabitants), the second town of the Republic as regards population and commerce, Alberdi, Cañada de Gomez, Carcaraña, Villa Casilda, Villa Constitución, Corondá, Es-

peranza, Gálvez, Helvecia, Reconquista, Rafaela, San Carlos, San Lorenzo; the population ranging from 2,000 to 10,000 inhabitants,

Province of Entre Rios.—Colón, Concordia, Concepción del Uruguay, Diamante, Gualaguay, Gualaguaychú, Nogoyá, La Paz, Rosario del Tala, Victoria, Villaguay; population varying between 4,000 and 15,000 inhabitants.

Province of Corrientes.—Alvear, Bella Vista, Curuzú-Cuatiá, Esquina, Goya, Mercedes, Monte-Caseros, Paso de los Libres, San Martín, Santo Tomé; towns of from 3,000 to 7,000 inhabitants.

Province of Córdoba.—Bell-Ville, Cruz Alta, Laboulaye, Marcos Juárez, Pilar, Rio Segundo, Rio Cuarto, San Francisco, Villa Maria; towns varying from 2,500 to 12,000 inhabitants.

Province of San Luis.—Luján, Villa Mercedes, Quines, San Francisco; towns with a population varying from 1,600 to 7,000 souls.

Province of Santiago del Estero.—La Banda, Frías, Ojo de Agua, Loreto, Salavina; towns with a population between 1,000 and 2,000 persons.

Province of Mendoza.—Junín, San Martín, Maypú, San Carlos, San Rafael; towns of between 800 and 2,000 inhabitants.

Province of San Juan.—Jachal, Valle Fértil; towns of 800 and 1,200 inhabitants.

Province of Rioja.—Chilecito, Union, Chamental, Castelli; towns with a population varying from 600 to 3,500 persons.

Province of Catamarca.—Belén, Chumbicha, La Plaza, Tinogasta, Recreo; towns of 500 to 2,700 inhabitants.

Province of Tucumán.—Concepción, Medina, Monteros; towns of 1,500 to 3,000 inhabitants.

Province of Salta.—Cafayate, Orán, Rosario de la Frontera, Lerma, Cerrillos; towns with from 1,000 to 1,500 inhabitants.

Province of Jujuy.—Tilcara, Ledesma, Perico del Carmen, Humahuaca; towns with a population varying from 700 to 3,200 souls.

Territory of Misiones.—Apóstoles, Candelaria, Concepción, San Javier, San José; towns of 500 to 1,000 inhabitants.

Territory of the Chaco.—Puerto Bermejo, Las Palmas; 400 and 600 inhabitants.

Territory of the Rio Negro.—Coronel Pringles, Conesa, General Roca; towns of 300 to 1,000 inhabitants.

Territory of Chubut.—Gaiman, Trelew; villages of 200 and 300 inhabitants.

According to the National Demographic Bureau, the movement in the population of the Argentine Republic during the year 1902 is shown in the following table:

PROVINCES AND TERRITORIES	Population on 31 December 1901	Marriages in 1902	Births in 1902	Deaths in 1902	Excess of births over deaths in 1902	Immigrants sent to the interior in 1902	Absolute increase in 1902	Population on 31 December 1902
Eastern or Littoral Provinces	3,216,617	18,868	117,292	53,584	63,708	13,509	77,217	3,293,834
Central do.	706,018	3,985	21,498	13,908	7,590	1,421	9,011	715,029
Western or Andine do.	424,354	2,003	16,054	11,064	4,990	1,234	6,224	430,578
Northern do.	440,308	2,263	14,357	16,246	-1,889	338	-1,551	438,757
Northern Territories	53,011	300	2,214	954	1,260	817	2,077	55,088
Central do.	47,490	161	1,313	537	776	125	901	48,391
Western do.	16,354	105	775	283	492	28	520	16,874
Southern do.	21,595	157	1,094	368	726	210	936	22,531
North-western do.	1,166	—	—	—	—	—	—	1,166
Totals....	4,926,913	27,842	174,597	96,944	77,653	17,682	95,335	5,022,248

We hereby see, as an exception, that in the Northern provinces, the deaths have been more numerous than the births, in 1902. In the year 1901 the births amounted to 16,094 against 13,487 deaths.

The proportion of births, marriages and deaths per thousand inhabitants in 1901—2, was 34.8, 5.5 and 19.3 respectively. Consequently the proportion of the excess of births over deaths amounted to 15.5.

The population of some European countries, compared with that of the Argentine Republic, shows the following proportions of density per square kilometer. (1)

COUNTRIES	AREA in square kilometers	POPULATION	DENSITY per square kilometer
<i>Argentine Republic.....</i>	2,950,520	5,022,248	1.702
France.....	528,700	38,962,000	73.694
Sweden and Norway	770,000	7,415,000	9.630
Belgium.....	29,450	6,694,000	227.300
Holland.....	32,800	5,263,000	160.457
Germany.....	540,800	56,367,200	104.229
Switzerland.....	41,400	3,315,000	80.072
Austria-Hungary.....	625,100	45,400,000	72.628
Italy.....	287,000	32,475,000	113.153
Portugal.....	93,300	5,428,700	58.185
Totals.....	2,948,550	201,319,900	68.367

(1) Stateman's Year-book (1903).



Government House — Buenos Aires

Political Organization.

The National Constitution insures, as a consequence of the republican system of federal representation adopted by the Argentine Nation, the twofold existence of the central government and of those established in each province and, further, provides that the provincial constitutions shall be based on this form of government, in accordance with the principles embodied in that Constitution and summarized in its preamble, as follows:

"We, the representatives of the Argentine Nation, assembled in General Congress, elected by the vote of the Provinces forming the same, in compliance with pre-existing covenants, with the object of constituting a National Union to guarantee justice, insure internal peace, provide for national defence, promote general wellbeing, and secure the benefits of liberty for ourselves, our posterity, and for all men who may inhabit this Republic; invoking to this end the protection of God, the source of all reason and justice: We ordain, decree and establish this Constitution for the Argentine Nation"

The form selected is that of the United States, but important modifi-

cations have been introduced that make the Federal government of Argentina a more centralized power than that of the Nation which served as a model.

For example, the National Congress has the sole right to enact civil, penal, commercial, and mining laws without, however, infringing the provincial jurisdictions, the application of which correspond to the Federal or Provincial Courts, as the cases or persons may appertain to the respective jurisdiction; it also has the right to enact general laws for all the Republic, on the following matters: Citizenship, bankruptcy, counterfeit money and falsification of State Documents. Art 67 paragraph 11.)

Each Province frames its own Constitution, passes its Codes for legal procedure and its laws for the advance of its institutions, provided they are not in conflict with the principles embodied in the National Constitution.

Its inhabitants enjoy the most ample guarantees for personal and pecuniary rights; and it may be said that all the principles embodied in the Magna Charta, the fundamental laws of England, as well as the most progressive legislation adopted by the European countries since the French Revolution are incorporated in the Argentine Constitution.

Foreigners are especially protected by the Constitution, which grants them "all the civil rights of citizenship; they can engage in industrial, commercial or professional pursuits; own landed property, make investments, transfer property, navigate the rivers and seaboard, enjoy freedom of religion, make testamentary dispositions of property and marry according to law. They are not obliged to become citizens, nor are they subject to obligatory war taxes. Citizenship may be obtained after a two years continuous residence in the country, and the authorities have it in their power to shorten this period in favor of the person desiring it, provided satisfactory proof can be alleged of special service to the Republic."

Military service is not compulsory until ten years have elapsed from the date of the conferring of citizenship.

The naturalized foreigner at once enjoys the franchise, and after four or six years is available for any public office, excepting that of President, or Vice-President of the Republic, which the law requires shall be filled by a native-born Argentine.

One of the liberties most amply guaranteed by the Constitution is that of the press, Congress being prohibited from passing laws restricting its freedom.

The Federal Government is divided into three bodies: These are: Firstly, Congress which makes the laws for the Nation. Secondly, the Executive power which applies and administers them, and Thirdly, the

Judicial power which interprets and applies them in contentious cases.

The Executive power is exercised by the President, who must be a native-born Argentine citizen, and who is the supreme head of the Nation, being encharged with the general administration of the country, which he carries out with the aid of eight Secretaries of State.

Legislative power is exercised by the National Congress composed of a Senate of 30 members (for which body each Province elects 2, and the Federal Capital 2), and the House of Representatives composed of 120 Deputies, whose members are elected by popular vote of the country, in the proportion of one for every 33,000 inhabitants.

The Vice-President of the Republic is President of the Senate, and acts for the President in case of absence, death, etc.

J U S T I C E.—The judicial power is exercised by the Federal tribunals and by the ordinary courts of the Capital, of the National Territories and of the Provinces, a system which constitutes an absolute guarantee for all foreigners resident in the country.

The Federal jurisdiction is represented in the Republic by a Supreme Court (the highest judicial tribunal) four Federal Courts of Appeal and Federal Sectional Judges. Of these there are three in the Capital and one or more in each Province.

In the National Territories the regular judges exercise both Federal and ordinary jurisdiction.

“The Federal jurisdiction is encharged (Art. 100) with the examination and decision of all cases referring to matters controlled by the Constitution, by the laws of the Nation (with the reservation noted in paragraph 2 of art. 67) and by treaties entered into with foreign nations; pleas concerning ambassadors, public ministers and foreign consuls; cases connected with the Admiralty and maritime jurisdiction; those to which the Nation is a party; disputes which may arise between two or more provinces; between one province and the inhabitants of another; between the inhabitants of different provinces or between one province and its inhabitants against a foreign State or citizen, etc.”

The ordinary justice in the provinces is carried out by the regular judges, by the justices of the peace and by superior tribunals, entitled in some provinces Supreme Court and in others Superior Tribunal of Justice. In the province of Buenos Aires there are, in addition to the Supreme Court, others entitled Courts of Appeal. In the Capital of the Republic the ordinary justice is carried out by two Courts of Appeal, one for Civil cases and another for Commercial, Criminal and Correctional matters. Criminal justice in the Capital is also deputed to judges who take evidence and formulate charges and to others who pronounce

sentences. As inferior judges, there are justices of the peace, *alcaldes*, and market Court judges.

In eight of the ten National Territories justice is encharged to regular judges named for four years, and by justices of the peace elected by the people for a term of two years, should the population be over one thousand, or else named by the Government should it be otherwise. In the two remaining Territories there are only justices of the peace.

The sentences pronounced by the regular judges may be appealed against before the Federal Courts of Appeal, whatever the nature of the case may be. The regular judges in the Territories are authorized to take cognizance of appeals and also of the decisions given by justices of the peace.

LEGISLATION.—The greater part of the laws of the country are in codified form, and applicable alike to the native-born, foreign resident, or transient visitor.

Under this heading may be included the National and Provincial Constitutions, Civil, Commercial, Penal, and Mining Codes, the National Codes for law proceedings of a civil or commercial nature, as well as for criminal cases, which come under Federal and ordinary jurisdiction in the capital; the same codes of the Provincial Tribunals, as well as those touching on rural and irrigation matters, etc. in certain provinces; laws relating to the registry of the civil state of persons, sanctioned for the Capital and National territories and later adopted by almost all the provinces; laws of immigration, colonization and citizenship, education, public works, railroads, patents of invention and trade marks, national elections, post office and telegraph, currency, pensions, forestry, etc., besides the annual laws of appropriations, licenses, stamps, etc.

LAW OF CITIZENSHIP.—According to this law the following are Argentine citizens: . 1. All persons born in Argentine territory, regardless of the nationality of their parents, excepting only the children of foreign diplomats and members of the legations resident in the country; 2. Children of Argentine parents, born out of the country, but who choose to adopt their parents' nationality; 3. All children born in the Argentine Legations abroad, or on board the warships of the Republic; 4. or at sea in neutral waters under the Argentine flag.

The following are naturalized Argentine citizens:

1. Foreigners over 18 years of age and two years continous residence in the country, who may state before a Federal Judge their wish to obtain rights of citizenship.

2. Foreigners who can prove to the satisfaction of said Judges,

without regard to the length of the time they have dwelt in the country, achievement of any of the following services: 1. having honorably fulfilled their duties as national or provincial employees, either in the country or abroad; 2. military or naval service or having taken part in an action in defence of the country; 3. established a new industry in the country, or introduced some useful invention; 4. been promoter or constructor of a railroad in any of the provinces; 5. forming part of the colonies already established or to be established hereafter, either in the national territories or provinces, provided they own landed property therein; 6. those who have become settlers in national territories, either within or outside the present frontier line; 7. those who have married an Argentine wife in any of the provinces; 8. those who have acted as instructors in any of the branches of education or industry.

Foreigners who have fulfilled any of the above mentioned conditions can obtain naturalization papers from the local Federal Judge to whom the application is made; no fee is required for the naturalization papers or for the proceedings in obtaining them.

Foreigners are allowed to vote in Municipal affairs, and are available for election to the Town Council of the district or town in which they reside.

MILITARY SERVICE.—According to Art. 21 of the Constitution, military service is compulsory to all Argentine citizens; they are compelled to bear arms in defence of the country and its constitution, according to



the laws sanctioned by Congress and the Decrees of the Executive Power.

The military law makes service compulsory to all citizens for the nominal term of twenty-five years.

The national army is composed of the following three divisions: first, the standing army; second, the National Guard; and third, the territorial Guard.

The standing army is formed of the permanent and reserve forces, with the corresponding Commanding Officers, commissioned and non-commissioned officers, established by the military laws; and the contingents of conscripts from 20 to 28 years of age, married or single, and the volunteers. The permanent army is composed of the contingents of conscripts of 20 years (one fifth of the number being drawn by lots to serve for two years and the rest for six months, the contingent for the navy also being furnished by these conscripts); and the reserve force is formed by those who having left the permanent service may not have yet reached the age of 28 years

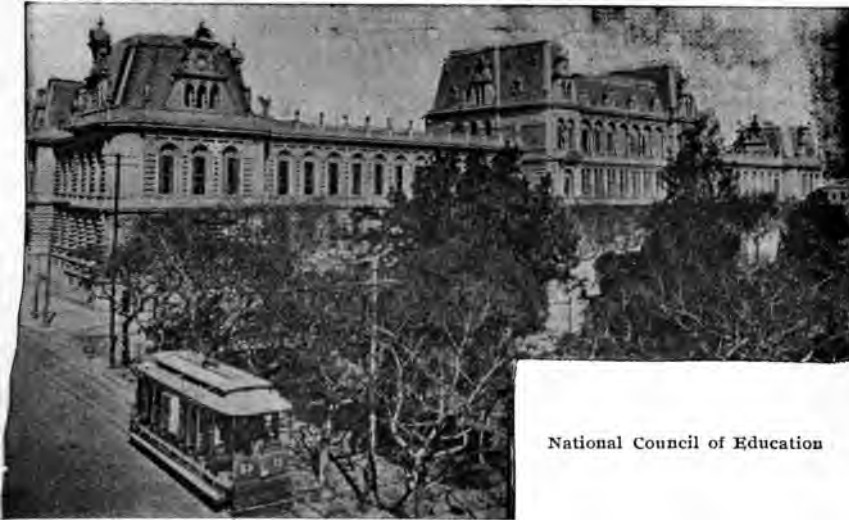
The National Guard is composed of all citizens between the ages of 28 to 40 years. The Territorial Guard comprises all citizens between 40 and 45 years.

The forces not included in the permanent army are mobilized solely in case of war.

Naturalized foreigners are exempt from service for the term of ten years.



Cadets of the Military College — San Martin



National Council of Education

Public Instruction.

This is divided into three different grades: Primary, Secondary and Higher.

Primary instruction is compulsory for all children of both sexes from 6 to 14 years of age, religious instruction being forbidden in the public schools, except in those cases when the children desire to receive it out of school hours. Free public schools exist throughout the Republic. Besides these, there are day and night primary schools, also free, where instruction is given in reading, writing, arithmetic, elementary history, geography, etc., to any person of more than 14 years of age.

Secondary instruction is not obligatory. It is gratuitous and includes the following studies: arithmetic, algebra, geometry, trigonometry, literature, physics, chemistry, natural sciences, ancient, modern and contemporaneous history, languages, etc., in 19 national Colleges, 4 of which are in the Federal Capital, one in each of the 14 provinces, and one more in Concepcion del Uruguay. Pupils may enter these colleges on conclusion of the primary studies, and remain from 4 to 7 years according to whether they have gone through the general studies only, or those preparatory to the University course.

There are 28 Normal Schools in the Republic, distributed as follows: 1 for male professors and 2 for female professors in the Federal Capital; 1 for professors of either sex in Paraná; 3 "Regional" for male teachers in Corrientes, San Luis and Catamarca and 14 for female teachers, one in each provincial capital. In addition 7 schools for teachers

of either sex located in various towns of the provinces of Buenos Aires, Santa Fé, Cordoba and San Luis.

The three "Regional" where only opened in 1903.

There are three Universities: one in Buenos Aires, another in Cordoba and the third in La Plata. A seven years' course is required to obtain a degree as Doctor of Medicine, six years for Doctor of Laws, and the same for the diploma of Engineer, there being shorter courses of special studies for the practice of various professions, such as pharmacy, obstetrics, dentistry, land-surveying and architecture, but more extended studies are required before graduating as Doctors of Exact and Natural Science, Philosophy and Humanities.

Technical education is preferentially encouraged throughout the Republic. In the first rank we find the Commercial Schools of the Capital, (in which 666 pupils matriculated in 1903) of Rosario, Bahia Blanca and Concordia, all of which prepare commercial experts, public accountants and translators; the Industrial Schools with their workshops for teaching various trades; the Agronomical and Veterinary Colleges of La Plata; the School of Mines in San Juan; the School of Vitiviniculture in Mendoza; the Pilots School and several Agricultural and Pastoral Schools.

The influence of these important institutions has already made itself felt in the country, bringing forward many excellent assistants towards our general progress.

There are other special institutions, for example, two schools for deaf-mutes (one for each sex), two of professional education for women, and a Normal School for the preparation of teachers for the Kindergartens.

In addition, a Pedagogic Seminary has been created for the instruction of professors of secondary and normal education which will be inaugurated during the present year of 1904.

And lastly there is a School of Art and several Conservatories of Music much frequented by pupils of both sexes.

The attendance at the primary schools has been as follows:

YEARS	NUMBER OF SCHOOLS	PUPILS
1885	2,486	158,188
1890	2,897	242,736
1895	3,325	285,854
1900	4,452	451,247
1901	4,538	460,229
1902	4,341	472,425
1903	4,341	481,687

The attendance at the National Colleges, Normal Schools and Universities has been as follows :

	1902	1903	
National Colleges.....	3,479	4,326	
Normal Schools.....	2,865	3,150	
University of Buenos Aires.....	3,602	3,825	(1)
University of Cordoba.....	313	351	
University of La Plata.....	108	—	(2)

RELIGION.—The Religion of the State is the Roman Catholic; but, in accordance with the Constitution of the Nation, all religions are tolerated. The 14th article of the Constitution states that all the inhabitants of the Nation may *profess with full freedom their religion* and in the 20th. article which grants foreigners all the civil rights of citizenship, it is declared that they have the right to *freely practice their own religion*.

(1) These two figures are approximate only.

(2) No returns.



Sarmiento School



Landing Immigrants at the South Basin

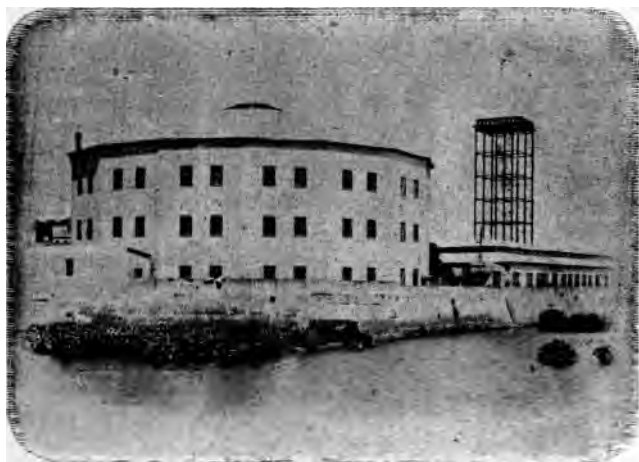
IMMIGRATION.

THE IMMIGRATION VISIT AND ITS OBJECT.—Every vessel arriving in the country carrying immigrants, who according to the Law are second or third class passengers, is visited and carefully inspected by a commission, composed of the Immigrants Visitor, the Sanitary doctor and an official from the Maritime Prefecture, which verifies the hygienic and wholesome conditions of the vessel, the accommodation for transportation, food during the voyage, supply of medicines; if a doctor and apothecary are on board; if it carries or not an excess of passengers in relation to its tonnage; if the dimensions of the main and lower decks and berthing are in accordance with regulations; if there are a sufficient number of ventilators, firepumps, and kitchen utensils; life-buoys and life-boats; if they carry persons suffering from contagious disease; if passengers have come on board in ports where any epidemic prevails; if it carries any inflammable or unhealthy articles amongst the cargo; and, finally, it receives any complaints on the part of the passengers as to bad treatment, together with the documents that the captain has to deliver respecting knowledge of the Immigration Laws, as also a statement of incidents occurring during the voyage, all of which is enforced for the benefit of the immigrants.

RECEPTION.—The immigrants are minutely interrogated and classified in order to acquire a knowledge of their ability for labour and their intentions they have formed, then a list is made out of those who abandon the benefits conferred by law, their documents being stamped "simple viajero" (ordinary passenger); other passports are classified and stamped "residente antiguo" (old resident).

The passports of the immigrants, who take advantage of the law having been stamped by the Visitor, they are taken in hand by the employees of the Immigrants Home named to receive them, who attend to them and direct them what to do, placing them in tram-cars which are sent down in anticipation, in which they are transported from the Port to the Home. The baggage is loaded on the trucks by porters from the Home.

FREE LODGING.—On arrival at the Home, the immigrants are given



Immigrants' Home

entry and are noted on the registers, and further are provided with a board and lodging ticket valid for five days, which term may be increased in case of sickness. The immigrants are conveniently lodged, the women and children in halls separated from those occupied by the men. The

baggage is taken by the Home porters to a deposit-store where it is examined by the Customs officers as a special service.

FREE BOARD.—The immigrants are rationed with food of the best quality, the quantities, which form the daily ration of an adult, being: meat 600 grammes, bread 500 gs., potatoes, carrots or cabbage (alternately) 150 gs. rice, macaroni or beans (alternately) 100 gs., sugar 25, and coffee 10 grammes. The children are supplied with milk. The meals, prepared in good steam-kitcheners, are served by waiters in a large dining hall.

MEDICAL ASSISTANCE.—In the infirmary attached to the Home the sick are always carefully attended to; the young are vaccinated and also the adults who so desire. There are doctors, students, men and women nurses, a dispensary with an ample supply of medicine and disinfecting material.

THE NATIONAL LABOUR BUREAU.—As soon as the immigrants arrive they are questioned as to the places to which they wish to go and they are offered by the Labour Bureau the situations which it is able to provide, according to the requests it may have received, the originals of which are filed, stating wages that can be paid and other conditions, all of which are carefully noted in special books kept for the purpose. Should it happen that for the moment no request is to hand for men of the trade of the immigrant desiring work, the Bureau itself will endeavour to procure work for him, either by applying at the factories, companies and works or, in default, telegraphing to the interior of the Republic. The immigrant who wishes to proceed to some point where there is no demand for men of his trade is duly notified of the fact by the Bureau. No pressure is applied to the immigrant to induce him to proceed to such or such a place but due regard is given to his wishes.

FREE TRANSPORT TO THE INTERIOR.—Immigrants for whom situations have been procured in the interior of the country or who wish to join their families are sent off by the Expeditionary officials, whose duty is to have their baggage, properly addressed, loaded up, to note the names of the immigrants on the list of the expedition, to provide them with the corresponding tickets for the journey and to look after them generally until they are conveniently and fully installed on the train or river steamer.

RECEPTION IN THE PROVINCES OR PLACES OF DESTINATION.—The immigrants who proceed to the Provinces or National Territories where work is to be procured for them, are received from the train by the Secretary of the Auxiliary Commission, lodged and boarded for ten days, at most, until they are provided with a place or leave for their ultimate destination. In case they have been sent up to be forwarded on by another railway, they are similarly attended to by that employee, in the same manner as in the Federal Capital, from the moment that the train arrives until the instant in which the other that has to take him on leaves.

POSTAL AND TELEGRAPHIC.—In the Immigrants Home there is an office for the despatch of mails and telegrams, in order to facilitate de-

livery of correspondence, and also with the object that the General Commissary and the National Labour Bureau may be enabled to transmit throughout the Republic the necessary orders and instructions for the proper carrying out of the service.

LOCATION OF BUREAUS TO ATTEND TO IMMIGRANTS

IMMIGRATION BUREAU.—Buenos Aires, Calle (Street) Alsina, number 627; Immigrants Home in Buenos Aires at the Retiro; National Labour and Forwarding Bureau in Buenos Aires at the Retiro.

AUXILIARY COMMISSIONS.—Province of Buenos Aires: La Plata, Bahía Blanca, Juárez, Pergamino, Trenque-Lauquén, Tandil, Tres Arroyos.—Province of Santa Fé: Rosario, Vera.—Province of Entre Ríos: Paraná, Concordia.—Province of Corrientes: Corrientes.—Province of Córdoba: Córdoba.—Province of Mendoza: Mendoza, San Rafael.—Province of San Luis: San Luis.—Province of Jujuy: Jujuy.—Province of Catamarca: Catamarca.—Province of San Juan: San Juan.—Province of Santiago del Estero: Santiago del Estero.—Province of La Rioja: La Rioja.—Province of Tucumán: Tucumán. And also the following in the National Territories or Governments: Formosa: Formosa.—Chaco: Resistencia.—Misiones: Cerro-Corá, Posadas, Candelaria, Concepción de la Sierra, Santa Ana.—Pampa Central: General Acha, Bernasconi, Toay, Victorica.—Rio Negro: Viedma, General Roca.—Chubut: Rawson, Camarones, Comodoro Rivadavia.—Santa Cruz: Gallegos, Puerto Deseado, Puerto Santa Cruz.—Neuquén: Chos-Malal.—Tierra del Fuego: Ushuaia.

Arrivals of Immigrants in the Republic from 1857 to 1903:

YEARS	NUMBER	NATIONALITY
1857—1860	20,000	Italians..... 1,331,536
1861—1870	159,570	Spaniards..... 414,973
1871—1880	260,613	French..... 170,293
1881—1890	846,568	British..... 35,435
1891—1900	648,326	Austrians..... 37,953
1901—1903	223,346	Germans..... 30,699
		Swiss..... 25,775
		Belgians..... 19,521
		Other nationalities 92,238
	2,158,423	2,158,423

CLASSIFICATION BY NATIONALITY OF IMMIGRANTS ARRIVED IN 1903.

Italians	42,358
Spaniards.....	21,917
French.....	2,491
British.....	560
Austrians.....	1,378
Germans	1,000
Swiss.....	272
Belgians.....	174
Other Nationalities.....	5,077
	<hr/>
	75,227
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Porous' Artesian Bore. = 400 meters west of Cape Curious

Water.

The conditions of water-supply existing in the Argentine Republic are extremely favourable, not only as regards the superficial water-courses but also respecting the subterranean water-bearing strata.

It is a well known fact that the less costly means of transport, that favour and develop production, are provided by water-courses, making direct use of rivers when these are navigable or indirectly when they may be made to supply artificial navigable canals; and not only do we find in the Argentine Republic important water-ways, along whose shores immense zones will be developed which merely await the strong arm of the immigrant for that purpose, but we also see that the orographical conditions are extremely favourable for the construction of navigable canals which, starting from the heart of the Andine provinces, will terminate in the commercial ports of the river Paraná, the estuary of the Plate or those of the Atlantic coast.

WATER-BEARING STRATA.—These water-bearing strata are of two classes:

1stly. The upper strata yielding what is commonly termed infiltration or well water

2ndly. The lower strata which retain the water under pressure of the permeable sub-soils which is, consequently, characterised by a power of ascension that at times is sufficient to force it to rise above the surface of the earth when suitable perforations are made.

THE UPPER WATER-BEARING STRATA.—Water is found in these at a trifling depth in all permeable soils that absorb the rain-water that falls on them. In the very slightly undulating lands of the provinces of Buenos Aires, Santa Fé, the eastern part of Córdoba, Entre Ríos, Corrientes, Misiones, part of the territories of the Chaco, Formosa and the Pampa, the ordinary wells usually tap the infiltration-water at a depth varying between five and twenty-five meters, although in the Pampa we find shaft-like wells that attain to sixty or eighty meters. One of the peculiar characteristics of the infiltration-waters of the above-mentioned zone is the great diversity in their degree of potability, it being quite common to find within a distance of ten meters fresh water and brackish water, probably due to the existence of localized deposits of salts in the soils that contain these waters.

In the Southern territories of the Republic, which are more uneven than the preceding, the waters of the upper strata make their presence manifest by means of numerous springs which are also characterised by diversity in the degree of potability. In the Andine provinces the water appears throughout the whole of the mountainous region, although in some parts of the plains it is otherwise, where, be it due to the fact that the alluvial soil is of very great thickness, as in San Juan and Mendoza, or because the impermeable loess, such as is found in the plains of La Rioja and Santiago del Estero, prevents the formation of these accumulations of water, the inhabitants have to supply themselves, in the first case, by means of artificial canals (called "acequias"), and in the second, by constructing dams for the purpose of retaining the rainfall, which is not always sufficient to assure the life of the stock and inhabitants in the interval that transpires between two consecutive falls of rain.

Other regions, such as the Andine valleys of the western districts of the territories of the Neuquén, Río Negro, Chubut and Santa Cruz, have the advantage, thanks to the dense vegetation that covers the Cordillera, of possessing numberless streams whose pure and crystalline waters flow throughout the entire year.

But, here and there, from North to South and from East to West, we find, scattered about, some desert spots (called "travesías") where the traveller should carefully gauge the powers of his mules before attempting to cross them; of these we may mention, amongst others, a large portion of the district of the Puna de Atacama, the highlands of Cata-

marca, the great salt plains of the provinces of Santiago del Estero and La Rioja, the valley of the Bermejo in San Juan, the table-land that separates the Negro and Colorado rivers, the "travesía" of Valcheta and others, but which, notwithstanding, we may at once remark, are all susceptible of being transformed by the carrying out of a series of perforations which would tap the artesian waters.

THE LOWER WATER-BEARING OR ARTESIAN STRATA.—Numerous perforations have proved the existence of important flows of artesian waters in various parts of the territory of the Republic, and the department of Agriculture is actively occupied in the task of increasing to a much greater extent the knowledge already obtained respecting the water system, by means of methodical borings for the purpose of studying and investigating the same. At the present moment we know that 90% of the sub-soil of the province of Buenos Aires holds, at an average depth of 40 to 60 meters, a supply of ascending water (termed "semi-artesian") of excellent quality.

In Bahía Blanca and its neighbourhood the water is extremely brackish, but by deepening the borings water has been found at 180 and 230 meters, more or less, which is of much better quality and rises to several meters above the surface.

In the provinces of Santa Fé and Córdoba the artesian waters, which in many places overflow, have been found at depths varying between 70 and 150 meters, and the experiments carried out, up to the present time, lead us to expect the existence of other accumulations of water of better quality at greater depths.

In the province of San Luis, artesian water has been struck at a depth of 600 meters in Balde, a station on the Argentine Great Western railway.

In the valley of the Rio Negro, near the Rio Negro station of the Neuquén railway, the artesian water has been found at a depth of 55 meters and, finally, in numerous places borings have been made to depths, not beyond 200 meters, which tapped water supplies of, more or less, good quality.

As regards the means of raising the water from ordinary wells, "jagüeles", (wells of large diameter) and artesian borings, we may mention that in addition to the ordinary common methods, which we may say are innumerable, wind-mills have come into general use, on account of the favourable conditions for their working.

MINERAL WATERS.—Numerous springs of sulphurated, carbonated, alkaline, and other Mineral waters are to be found in the Republic, the study of whose properties is now receiving the attention of the authorities and already a series has been made of some of the warm springs of Rosario de la Frontera in Salta; of those of Puente del Inca, Cacheuta and Borbollón in Mendoza; Laja and Villacun in San Juan; and of the Copahues in the territory of Neuquén.

Public Lands.

The National Government holds thirty two thousand one hundred and sixty five square leagues (32,165) of land, located in the ten territories which it governs and administers directly. These fiscal lands are distributed in the following manner.

TERRITORY	Hectareas ar., c'as.
Misiones	843,608.85.21
Formosa.....	6,985,691.67.94
Chaco.....	7,190,938.82.13
Pampa.....	2,182,671.36.05
Rio Negro.....	12,980,993.26.37
Neuquén.....	5,085,553.38.98
Chubut.....	18,761,695.22.47
Santa Cruz.....	19,401,632.74.21
Tierra del Fuego.....	1,284,647.31.86
Los Andes.....	5,696,600.00.00
Total.....	80,414,032.65.22

or 32,165.6130 kilometrical square leagues.

In view of the enormous differences of latitude, of elevation above sea level and of the character of the soil, these fiscal lands may have the most varied applications. Whilst the territory of the Andes, on account of its stony soil, lack of water and its great elevation, which varies from three thousand to five thousand meters, is not susceptible of being profitably worked, except in what may arise from the exploitation of the deposits of borax and of the veins of gold stored in its mountains, the territories of Misiones, Formosa and the Chaco are most suitable for the cultivation of calid climate crops, such as, cotton, coffee, tobacco, sugar-cane, pea-nut, "mandioca", etc. In addition, these territories are covered for hundreds and hundreds of leagues by very valuable woodland products, such as the "Quebracho" much used for tanning. Cattle also do well in many parts of these three territories.

But the lands most suitable for stock-raising are those of Patagonia, from the Pampa Central to Tierra del Fuego, where the government has already formed several incipient colonies, in which it also possible to till the land to some extent.

The Land Law, and the corresponding dispositions decreed, define the procedure to be followed in order to hand over gradually to private enterprise the lands pertaining to the State.

During the last two years the Minister of Agriculture has sent engineers and agricultural experts to these lands, in order that they should measure and survey them thoroughly, stating in a detailed manner the purposes to which they can best be devoted. These investigations are still being carried on, as the extent of ground is so great; nevertheless, mindful of the results attained by the first expedition, the Ministry has already decreed the sale and lease of 1,700 leagues in the territory of Chubut and of close on 2,000 in the territory of Santa Cruz and about 800 leagues in the Andine valleys of the Neuquén territory.

PUBLIC LAND LAW N° 4167

The Land Law, number 4,167 of the 8th. January 1903, has been methodised in its dispositions according to its various subjects (lands, forests and "yerbales" or Paraguayan tea groves) by the decrees of 2nd and 27th of November and 18th of December 1903.

As regards the fiscal lands, that law and its regulations may be stated in brief in the following manner:

Fiscal lands may be devoted to:

- 1st The formation of agricultural colonies and towns;
- 2nd The formation of pastoral colonies;
- 3rd Sale by public auction;
- 4th Lettings under contract.

1st, AGRICULTURAL COLONIES

These colonies will be laid out in the following manner:

- a) Urban or town plan, divided into rectangular blocks of one hundred meters each way, and these sub-divided into lots called "solares", whose greatest dimensions will be fifty meters front by fifty meters in depth, and the smallest dimensions twenty-five meters front by fifty in depth.
- b) Rural plan, divided into lots called "quintas" and "chacras"; the "quintas" or lots bordering the town to be fifteen hectares in extent as a maximum and five hectares as a minimum.

- c) «Chacras» or rural lots, the extent to be, according to Art. 2 of the law, one hundred hectares as a maximum.

In these colonies no one is allowed to acquire more than four «solares» or lots in the towns (a) nor more than two «quintas» (b) nor more than two «chacras» or rural lots (c).

2nd, PASTORAL COLONIES

These colonies will be composed of lots of one thousand two hundred and fifty hectares or of two thousand five hundred hectares, devoted to stock-raising; but they may also be used for tillage and stock-raising or mixed farming.

No person or company is allowed to acquire more than one of these lots.

3rd, SALE and 4th LETTINGS UNDER CONTRACT

The Government lands not disposed of in the manner aforementioned (1st and 2nd) may be sold at public auction at the price fixed by government or leased at a rental which will also be determined by government

GENERAL DISPOSITIONS

The concession of agricultural or pastoral lots, as also the sale or leasing of government land, can only be applied for and obtained at such times as the government may indicate by means of a decree, setting apart for such purpose one or several divisions of land.

In these decrees notice will be given of the latest dates allowed for presenting the necessary applications; such dates having passed, these dispositions lapse *ipso facto*, and will not serve as a basis of any application for a concession, until a new term be announced by government decree for the disposal of further divisions of land for colonization, sale or lease.

APPLICATIONS FOR AGRICULTURAL HOLDINGS

Applications for obtaining town lots or holdings in agricultural colonies can be made in each respective town or territory and also in the Federal capital at the Bureau of Lands and Colonies. These applications are not presented by means of any special written document and only consist of an entry made in a paged and stamped book, in which are noted the signature of the interested party, the date of the application and the lot desired. Applications may also be made by registered letter or telegram addressed to the officials deputed to receive them.

APPLICATIONS FOR PASTORAL HOLDINGS

Applications for pastoral or stock-raising holdings, should be made

out in the same manner as the applications for agricultural lots, with the difference that, in this case, in the aforementioned entry, the name, address, age, nationality, condition, number and sex of children and former occupation must be noted down. Applications may also be made, in the same manner as is done in the case of agricultural lots, by registered letter or telegram addressed to the officials named to receive the same.

These lots are conceded directly to the interested parties, without tender or bidding, public or private, the only thing required being that the applicants fulfil the conditions of the law. (See Acquisition of pastoral lots.)

PURCHASE OF LANDS AT AUCTION

For the purchase of government land, that has not been set apart for colonisation, it is sufficient to attend the public auctions which are held during two consecutive days, notice and descriptive plans being published during ninety days previous to date of sale. The lots will be knocked down to the highest bidder and one bid is sufficient, provided that it be not less than the price fixed by government as the basis of sale.

Purchasers will pay in at once, as earnest-money, an amount equivalent to ten per cent of the amount of the sale.

Purchasers are not allowed to work the forests existing on lands acquired, whether agricultural or pastoral lots or on those purchased at public auction, or on lands held on lease, until they have obtained the definite titles of the property. Leaseholders of this class cannot in any case work the forests existing on the land they rent. Purchasers and leaseholders of government lands under these conditions may only make use of the timber, found on lands conceded for stock or tillage, for the requirements of fuel and building material.

Purchasers of government lands, or their successors, cannot oppose at any future time the opening of streets and roads, railway lines and canals, on or through their properties. In such cases they have no claim for indemnity for the amount of land occupied by such works, except when they affect a total space exceeding three per cent of the whole property; but they are entitled to an indemnity for the value of the buildings, plantations and crops destroyed.

To obtain fiscal lands on lease, the applications should be framed in the same manner as those referring to the holdings in the agricultural colonies.

No person or society is allowed to acquire by purchase above twenty

thousand hectares, be it directly or by transfer made in their favour by parties who have not paid up the total price of the lands they transfer.

No person or society is allowed to acquire on lease more than twenty thousand hectares, be it directly or by transfer made in their favour by other leaseholders.

Government in accordance with art. 8 of the Law, may cede gratuitously up to the fifth part of the lots, in the towns and agricultural or pastoral colonies, to the first settlers who personally establish themselves in these centers; it may also, in place of this concession, allow a rebate of one fifth of the price in each of these lots.

As each colony is established government will put on record in the corresponding decree whether it resolves to grant either of these two concessions.

The State does not hold itself responsible for any errors in the data furnished to parties interested in fiscal lands, as it is presumed in all cases that they have examined them before applying for a concession.

Every lease, concession or sale of lots, in which the obligations of the law and those established by decrees already dictated or those dictated later on for each centre are not fulfilled, may be declared void, the amounts paid and the improvements carried out remaining for the benefit of the State.

VALUES

The Law only states the lowest values and therefore the government will determine the upset prices in each case; the base prices established by Law are as follows:

Sales of land by public auction, forty cents gold or one dollar paper currency per hectare.

Each "solar" (town lot), ten dollars paper currency.

Each "quinta" or "chacra" (small farms) two dollars fifty cents paper currency per hectare.

The price of the lands purchased is to be paid, according to art. 2 of the Law, within a maximum term of five years, with interest at the rate of six per cent per annum:

TITLES OF PROPERTY

The titles of property, according to art. 3 of the Law, will be land-warrants, the counter-foils of which remain in the corresponding registers, kept in due form by the offices of the Bureau of Land and Colonies (in the Federal Capital), and on these will be noted the extent, boundaries and other necessary data respecting the land whose ownership is to be

transferred. These warrants will have the same force as other public legal documents (art. 3 of the Law) and will be duly noted in the corresponding public registers. (Registry of Property and Registry of Mortgages.)

Government is authorized by this law, to deliver the definite title of the property to purchasers who have paid up one sixth of the value in cash at time of purchase and have complied with the conditions as to settlement, cultivation or introduction of live-stock, according as it may refer to agricultural and pastoral holdings or to lands purchased at auction.

In such a case the land remains mortgaged for payment of the balance of cost; this having been paid the mortgage is cancelled.



Establishment Fitz Roy, Channel Magellan street—República Argentina.

ADMINISTRATIVE DISPOSITIONS OF THE DECREE OF 2nd NOVEMBER 1903.

ACQUISITION OF LOTS IN THE AGRICULTURAL COLONIES

“Solares” or town lots: the price must not be less than ten dollars paper currency for each one, and the government when establishing a colony will determine, on this minimum, the price at which the lots are to be put up.

Those persons who acquire town lots must fence them in and build a dwelling and accessories within a term of one year.

“Quintas” and “Chacras”: the price of these small farms must not be less than two dollars fifty cents paper currency per hectare, and government when establishing a colony will determine the upset price of sale.

Persons acquiring these small farms are bound to build a dwelling and to cultivate the soil in the proportion established by government for each colony within two years from date of purchase; this proportion must not be less than one fifth of total extent of the lot.

The payment of the cost of these lands will be effected in six annual instalments, the first being payable at the completion of the second year after purchase.

All conditions having been complied with, and the value of the land paid up, the definite titles to the property can be obtained. The titles can also be obtained, after compliance with the aforementioned conditions, by paying one sixth of the price in cash; the land, in such case, remaining on mortgage as guarantee of the balance of cost.

The roads between the lots in the agricultural colonies must be kept in good condition by the neighbouring proprietors in proportion to their respective fronts on same, either by monetary contributions or by personal labour, the management being confided to said proprietors.

Purchasers not complying with the conditions of the Law or those that may be decreed for each colony, will lose the improvements made and the amounts paid, such remaining for the benefit of the State, the respective concessions being declared void.

Applications should not be sent in until ninety days after date of publication of the descriptive plans of each colony, a similar term of ninety days being allowed for presentation; the lots asked for having been obtained, the interested party should take possession of them at his own expense, and he should in the same manner apply for squatters to be removed, should there be any on the land.

These dispositions do not apply to certain zones in the territories of Misiones, Chaco and Formosa declared by government to be suitable for agriculture, but only to those that are principally occupied by forests of timber for building purposes or "yerbales" (groves of Paraguayan tea).

ACQUISITION OF PASTORAL LOTS

These lots, which according to the Law are composed of an area of one thousand two hundred and fifty or two thousand five hundred hectares each, may be applied for whenever the government sets apart, by decree, one or more divisions for pastoral colonization.

The descriptive plans having been published during ninety days, a further period of ninety days will be allowed for the presentation of applications. These should be framed in the same manner as those for agricultural lots, that is by entry in paged and stamped books, with the difference, that, in this case, the entry should state the name of the

applicant, age, nationality, condition, number and sex of children, and former occupation.

The upset price of pastoral lots will be fixed by government, and to this will be added the cost of measurement at the rate of six cents currency per hectare, the amount being paid in the following manner:

The tenth part, plus the cost of measurement, at once in cash, the balance in five equal annual payments with interest at six per cent per annum.

The conditions imposed on purchasers of pastoral lots, are the following:

- 1st To be native-born or to become naturalized within two years from date of purchase of lot;
- 2nd To be above 22 years of age if a male; if a widow woman to have at least one son above 16 years of age;
- 3rd To bind themselves to stock the lot personally, placing on it in the first two years for each league (2,500 hectares) at least 400 ewes or goats, or one cow for each five ewes, and the necessary out-buildings and pens; to plant one hundred trees and build a dwelling house and accessories. The obligation of planting trees may be commuted by payment of fifty cents paper currency per tree.

The purchasers of pastoral lots are not permitted to work the timber existing on them until they have obtained the definite titles to the property; excepting the quantity required for fencing, building and fuel.

The proprietary titles can be obtained whenever full payment has been made and the conditions of the law complied with or, also, when the conditions have been complied with and the sixth part of the price paid at time of purchase; in this case the land remains mortgaged in guarantee for the payment of the balance of purchase money.

If at the termination of the second year the obligations entered into have not been fulfilled, the sale will be annulled, with loss of payments already made; the same course will be taken if, before having obtained the definite title to the property, any of the payments due should not have been made good, all improvements carried out remaining for the benefit of the State. These lands may not be transferred until full payment of purchase money has been made.

ACQUISITION OF LOTS FOR TILLAGE AND STOCK-RAISING OR MIXED FARMING

These lots may vary in extent from 200 to 2,500 hectares.

The conditions of settlement, sale and titles, are the same as those established for pastoral lots, and these may be applied for in the same manner.

SALE OF GOVERNMENT LAND AT AUCTION

Sales of fiscal lands will be held at the Department of Lands and Colonies during two consecutive days, between two and four p. m., the descriptive plans having been published for at least ninety days previous to date of sale.

The lots will be knocked down to the highest bidders.

The minimum price of sale will be one dollar paper currency per hectare, in the territory of the Pampa and districts of Patagonia.

The area to be sold annually, in this manner, may not exceed 2,500,000 hectares and the basis of sale as regards extent will be two thousand five hundred hectares per lot, into which each fraction of twenty thousand hectares will have been sub-divided beforehand.

No person or society may acquire a greater area than twenty thousand hectares, be it directly or by transfers made previous to full payment of price.

Purchasers must work their land within two years, placing on the ground in live-stock and buildings a capital equivalent to five hundred dollars paper currency for each two thousand five hundred hectares.

The payment of purchase money is made in the following manner: the tenth part, plus cost of measurement at the rate of six cents paper currency per hectare, in cash on receipt of provisional warrant, and the balance in five annual payments with interest at six per cent per annum. Promissory notes must be signed for the amounts of annual payments, the property being considered as guarantee for due fulfilment.

The proprietary titles may be obtained whenever the legal obligations have been fulfilled and the full price paid or, also, when these obligations have been fulfilled and the sixth part of the price paid at time of purchase; in the latter case the land remains mortgaged in guarantee of the balance of value.

Those who do not comply with the obligations established, within the term appointed, will have to pay a fine equivalent to twice the territorial tax for the time that these obligations remain unfulfilled; this course will be taken if all notes due have been paid.

Should five years pass without fulfilment of conditions the sale will be declared void with loss of interest and improvements made.

Should a note that has fallen due not be paid, the land will be sold in public auction for account of the defaulting purchaser, thirty days previous notice having been given.

LEASEHOLDS

The maximum area of each leasehold lot, and the total that may be taken up by one person or society, directly or by transfer, must not exceed twenty thousand hectares.

The term of lease shall be ten years.

The rent to be paid will be determined by government by a special decree for each region; after the fifth year the original rent will be increased by ten per cent in each succeeding year. The rent is to be paid annually in advance, the tenants also paying the cost of measurement at the rate of six cents paper currency per hectare.

Tenants are bound to invest a minimum capital of five hundred dollars paper currency in live-stock and buildings for each two thousand five hundred hectares, within two years from date of contract. If the land permits of it, one hundred fruit or timber trees must be planted for each league, and if any portion is suitable for cultivation one per cent of such area should be cropped.

The obligation of tree planting may be commuted by payment of fifty cents paper currency for each tree, and in each contract the conditions will be stated as the case may happen to be.

The tenants may not work forests, salt deposits or minerals that may be found on the land, except for personal use and what may be required for their stock business.

The stock placed on the land must not be less than 20 ewes or goats, or one cow or mare for each five of the smaller animals.

The lessees to take possession of the land let to them at their own expense and without intervention of the State.

Rent to be paid annually and in advance: the first year's rent must be paid on signing the contract in the Department of Lands and Colonies, and the succeeding ones during the first sixty days of each year.

Leases will become null and void under the following circumstances: failure of payment of a promissory note or of the cost of measurement, non-compliance of conditions of settlement and other dispositions in force.

If during the term of lease it should be decided to colonise the land by the State or to make use of it for any object of public benefit, the lessee has the right to purchase, at the price ruling in that region at the time of rescision of contract, an area equivalent to five per cent of the total for each year expired from date of contract,

Every applicant for lands under lease must sign the contract and make the cash payments within sixty days from date of appropriation, under penalty of annulment of same, *ipso facto*.

On termination of lease the tenant may purchase, at the price ruling at that time, up to the half of the land he held. This is a maximum,

subject to reductions that the government may establish for each region when offering lands on lease, all of which will be stated in the respective contracts, as also the basis for determining the rent, the lessee renouncing whatever right he might allege to the contrary.

Applications for leases are framed in the same manner as established for agricultural and pastoral lots and, as soon as these are granted, the contracts are made out in triplicate without the intervention of a public notary, one copy being delivered to the lessee.



East front of Government House.--Buenos Aires.

ADMINISTRATIVE DISPOSITIONS OF THE DECREE OF 27th NOVEMBER 1903.

The rules and regulations relating to lumbering in fiscal woods, as per Law 4167 of 8th January, are fully set forth in the second of the aforementioned decrees, bearing date of 27th November 1903, and its dispositions may be summed up as follows :

Woods given over to lumbering shall be divided into sections of ten thousand hectares, an approximate statement of the class and quantity

of workable timber they contain and of the means of communication with the ports and stations for shipment of the products being provided for each lot.

The largest area that may be conceded for lumbering purposes is one lot of ten thousand hectares.

The concessions for lumbering shall not be granted for a longer period than ten years.

The appropriation of said lots will be made by public sale in the Department of Lands and Colonies, ninety days previous notice being given in the Capital and in the Territory where the woods are located.

The public sale will be held in accordance with the schedule of conditions framed for that purpose.

The purchasers must pay, in the act of purchase, the earnest-money established in the respective notices.

The basis for the sale is: ten per cent of the value of the timber extracted, said valuation to be made up annually by the Ministry of Agriculture at the prices current of the wood in the lumber market of the point of shipment, be it by rail or water.

This basis of valuation will be for the whole of the time determined by government in the respective decrees.

The appropriation of such lots may also be made directly by the government under the same conditions aforementioned.

Within a certain radius of each settlement, which the government will determine, urban concessions may be granted in lots of less than one hundred hectares for lumbering purposes, the value of timber felled not to exceed three thousand dollars paper currency per annum

The applications for these lots should state:

- 1st Location of lumbering site, under its best known name;
- 2nd Area and limits of land applied for;
- 3rd Species of trees and maximum and minimum quantity of lumber to be felled, stating also if it is for export or home consumption;
- 4th Term during which lumbering will be carried on;
- 5th Place of shipment of products by rail or water;
- 6th Place where tax is to be paid;
- 7th Security offered as guarantee for fulfilment of contract.

GENERAL DISPOSITIONS

The felling of timber and cutting of firewood, the preparation of charcoal and the extraction of any woodland product whatsoever from the forests pertaining to the State is strictly prohibited, except when authorized by the Ministry of Agriculture.

The timbered lands whose net value is at the least ten dollars paper currency per hectare, can not be sold nor leased, such being reserved for woodland concessions.

The leasing of these lands for stock-raising or tillage can only be granted to those who have obtained the concession for lumbering in the woods.

Lands already leased, having timber on them, can only be let for lumbering to the actual tenant.

The felling of timber is prohibited in the seasons of active growth of the trees, as also the cutting of undersized trees.

Every concessionnaire or grantee of woodland must give sufficient security as guarantee of fulfilment of contract.

The use of an official brand or mark on the timber removed from government woods is compulsory.

No forest products from fiscal or private woods can be removed from the district in which the woods are located without a way-bill proving their lawful source; forest products removed without such way-bill may be embargoed and detained until the source from which they proceed is fully proved.

The concessionnaires of woodlands are obliged to open up proper paths for the transport of the products to the roads, coast or ports of shipment; these paths or trails are for public use so long as the transport of the concessionnaires is not prejudiced thereby.

Concessionnaires who should work or remove products not specified, or in larger quantity than stipulated in contract, are subject to seizure of the products and rescision of contract.

Parties who may destroy by fire or cut, in any form, trees on government lands without the necessary concession, will be imprisoned and placed at the disposal of the appointed judges.

ADMINISTRATIVE DISPOSITIONS.

REGARDING CONCESSIONS FOR WORKING "YERBALES" (Paraguayan tea)

DECREE OF 18th DECEMBER 1903.

The working of the "Yerbales" is controlled by decree of 18th December 1903, the summarized regulations embodied in it being as follows :

The "Yerbales" of the territory of Misiones are divided into four groups as follows ;

Old "Yerbales"; comprising those situated to the West of the stream Arroyo Acoraguay or Barra Bonita.

New "Yerbales"; comprising those found between the abovenamed stream and the woodland road, on the river Uruguay, called Faeran's or Paggi's.

"Yerbales" of San Pedro; comprising those situated between the above woodland road and the Brazilian boundary.

"Yerbales" of San Antonio; comprising those situated in the region bounded by the streams of San Antonio and Uruguay, and the rivers Yguazú and upper Paraná.

An area of five thousand hectares, to the South and West of the limits of the town of San Pedro, has been reserved for the working of "yerba mate"; this to be divided into lots of a maximum of twenty-five hectares each.

The permits for the formation of camps for working "yerba mate" in a radius not exceeding half a league, may be applied for from the first of December to the first of June.

The applicant should determine, as exactly as possible, the location of the camp, stating its distance from some well known place, its position to right or left of the common woodland road that runs through the "yerbal", and the distance from said road; stating also if the land is fiscal or private property.

The government of Misiones will attend to every thing relating to the local measures respecting concessions.

The permits for working will be granted during the first fortnight of January.

Camps can not be located within a distance of, at least, one league from any other camp already formed, except there be between them a waterway of some importance.

The concessionnaire will always have the preference, during a term of six years, for a prolongation of the concession for one year, even if some other person should have applied for same; it being understood that he has worked it steadily and has not incurred any fines. This preference remains subordinate to the condition that the government may not have decreed the subdivision, sale or leasing of the land in any form it may consider convenient.

The control of the working of the "yerbales" will be deputed to an inspector, resident in Posadas, the capital of the territory.

In the last three of the groups of "yerbales" there will be a resident



Ushuaia—Tierra del Fuego.

National Territories.

TERRITORY OF MISIONES. -- The total approximate area of this territory is 2,922,900 hectares.

The land still held by the National Government amounts to 843,508 hectares.

From its situation, climate, fertile soil, its immense forests and the vast number of rivers and streams that course through it in every direction, the territory of Misiones enjoys the reputation, amongst the others, of possessing the greatest number of nature's bounties and consequently is called upon to become one of the most important provinces of the Republic.

The "Iman" range, which divides it into two portions throughout its whole length, is formed by a series of uninterrupted hills and mountains of no great elevation, a brook flowing or a spring breaking out almost invariably at the foot of each slope.

There are parts of the country which appear as rolling plains of untimbered land, but the greater portion is extremely rugged and covered by hoary and impenetrable forests.

The land does not require any artificial irrigation whatever, as the numberless streams and springs that break out on the slopes of the hills take on themselves the task of watering the fertile soil.

The climate is healthy. The heat is not excessive and the cold even less so. The maximum temperature in summer is 42° Centigrade and is by no means unsupportable owing to the fresh breeze that springs up at even-tide. In winter the thermometer rarely falls to 0° Centigrade.

The rivers Upper Paraná, Upper Uruguay and Yguazú are the important water-courses that serve as a means of communication with other parts of the Republic.

There are various national colonies and agricultural centers, located principally on the sites of the old «Jesuit reductions», or missionary stations.

TERRITORY OF FORMOSA.—The total area amounts to 10,725,800 hectares, of which 6,985,691 hectares is still held by the government.

The climate generally is hot, but healthy. The temperature in summer reaches to 40° centigrade and rarely falls to 0°.

The soil is extremely fertile and does not require irrigation, falls of rain being frequent and dews abundant in this region.

Three large rivers bound the territory; the Paraguay, Pilcomayo and the Bermejo; there are also many others of secondary importance.

TERRITORY OF THE CHACO. The area of this territory is about 13,663,500 hectares, of which the National Government only holds 7,190,938 hectares, having sold or leased the rest.

It consists of a great plain, which is not so low and is much drier and more argillaceous than the territory of Formosa.

It contains immense forests composed of a great variety of trees that furnish excellent timber.

The most important rivers, which also form part of its boundaries, are the Paraguay, Paraná, Paraná-mini and the Bermejo, the first three being the means by which the products of the territory are conveyed to the commercial centers.

There are also other small rivers whose waters during the greater part of the year provide easy transport to the points of shipment.

As in the territories of Misiones and Formosa, the fertility of the soil and the climatic conditions render irrigation unnecessary.

The climate is healthy and differs but little from that of Formosa. Resistencia is the capital of the territory.

TERRITORY OF THE PAMPA.—This territory has an area of 14,590,700 hectares, 2,182,671 hectares being the property of the National Government.

The greater part of the lands are fertile, the exceptions being very rare and even these improve wonderfully as they become surrounded, by the cultivated crops and population of the neighbouring districts.

This is the most densely populated territory, in which all men that have knowledge of it confidently invest capital and labour.

Owing to the small rain-fall and the prevailing winds a part of this region is dry, but nevertheless very suitable for cattle.

The climate is healthy; in the summer the temperature occasionally rises to 40° C. and in winter frosts sometimes occur.

TERRITORY OF THE RÍO NEGRO. — The total area amounts to 19,669,500 hectares, of which the National Government still holds 12,980,993 hectares.

The country is good for grazing, and the region situated in the valley excellent for agriculture.

The northern part of the territory is enclosed by two great rivers, the Colorado and the Negro, which furnish the means for the construction of canals for the purpose of irrigating these excellent lands.

The second of the abovementioned rivers provides means of communication. In addition, there is a railway which connects this district with the capital of the Republic.

The climate is similar to that of the Pampa, although slightly colder.

TERRITORY OF THE NEUQUÉN. — The area of this territory is about 10,970,300 hectares of which the National Government still holds 5,085,553 hectares.

The lands of this region are very good the vegetation being excellent.

There are some important rivers that will contribute towards the irrigation of the soil.

In the western districts the temperature is very low, a large portion of the hills being at all times covered with snow.

In the eastern portion the climate is more genial and is said to be very healthy.

TERRITORY OF THE CHUBUT. — This territory has an area of 24,203,900 hectares, of which 18,761,695 hectares still belong to the State.

The lands in general are not so fertile as those of the previously mentioned territories, but there are some districts of fairly good quality which allow of the formation of stock-breeding farms and flourishing centers of population.

In addition to the river Chubut, there are others of not less importance, and also a number of lakes.

The climate is dry and pleasant throughout the whole of the eastern portion of the territory the extremes of temperature being 39° and—10° Centigrade

In the Andine region the climate varies very much, according to the elevation of the country.

The means of communication comprise maritime and land routes: by the Atlantic, and by the railway from port Madryn to the Chubut colony.

TERRITORY OF SANTA CRUZ.—The area amounts to 28,275,000 hectares, 19,401,632 hectares being state property.

The districts bordering on the coast of the Atlantic and those to the south of the river Santa Cruz are covered with excellent pasture grasses. The lands bounded by the Cordillera of the Andes are notable on account of the vast forests, which cover an immense extent of the country.

There are several rivers, besides the Santa Cruz, such as the Desado, Gallegos and others of equal importance, and also several large lakes.

The rainfall is far from being abundant.

The only means of communication is a line of steamers, whose vessels call at various ports of the territory.

TERRITORY OF TIERRA DEL FUEGO.—Comprises an area of 2,149,000 hectares, the State holding 1,284,647 hectares.

The climate is decidedly cold though not extremely so. Rain is abundant in autumn whilst in summer dry winds prevail.

The means of communication, as is the case with Santa Cruz, are those provided by the steamers that call at its ports.



Partial view of the port of Buenos Aires

Climate.

The Argentine Republic is situated between the 22nd and 55th parallels of South latitude, thus, with the exception of a narrow strip to the north of the Tropic of Capricorn, its territory lies within the temperate zone. Owing to the hypsometric variations of its surface from the shores of the Atlantic to the snow-clad summits of the Andes — widely varied climatic conditions are found in crossing the country from east to west. Hence, given the wide amplitude in latitude and elevation — the two principal factors which so largely influence the intensity of meteorological elements and their relations to each other — the differences of climate within the limits of the Republic will be easily understood; and to this wide range of climatic variations is due the exceptionally favorable conditions for the cultivation of nearly all varieties of the vegetable kingdom.

TEMPERATURE.—The accompanying map shows the annual isothermal lines, without reduction to sea level. In the delineation of these lines, the temperatures prevailing at high altitudes have not been considered, otherwise we could have, in the regions of the various systems of ranges or ramifications of the Cordilleras, isotherms representing temperatures

below freezing interspersed with those indicating subtropical conditions.

It will be seen from a glance at the map that in the central and central northern sections, the isotherms cross the pampa region in the general direction of east to west, but as they approach the mountains their direction is diverted northwards and they continue parallel to the central range of the Cordilleras: thus at the Bolivian frontier, their course is from south to north, nearly at right angles to their former direction. On the same frontier line, over an extension of about 800 kilometers, we find a decrease of 4° of temperature from east to west: a decrease proportionally much greater than that from north to south. The highest isotherm, 22° (not reduced to sea level) passes through the northern part of Misiones, crosses Paraguay and in the territory of Formosa turns towards the north. The other extreme is found in the isotherm of 5° , which passes through the islands to the south of Tierra del Fuego, in latitude 56° , thus showing a decrease of 17° in temperature with an approximate increase of 34° of latitude or at the ratio of 0.5 of temperature for each degree of latitude.

The temperature of the littoral region differs from that of the interior principally in its smaller range, both in the daily and annual variations; and although rapid changes take place, these are not, as a rule, so accentuated or frequent as those occurring in the same degree of latitude in the mediterranean and andine regions.

In the northern section of the littoral region the temperature very rarely rises above 41° or falls below 5° , and in the southern section, in the latitude of Buenos Aires, the usual limits may be taken from 39° to 0° .

In the mediterranean region are found the extreme temperatures observed in the Republic, with the exception of the summits of the Cordilleras. In the northern and central districts of this region the highest temperature recorded was 48° C., in the province of Catamarca, and in the southern portion, temperatures as low as -18° C. have been observed, thus giving a range of 66° .

The general character of the annual range of temperature, obtained from the monthly means and extremes, from 26 stations, fairly distributed throughout the country, is shown by the figures given in the following tables. The mean monthly temperatures are deduced from readings taken at 7 a. m., 2 p. m. and 9 p. m. during a long series of observations, but the maximum and minimum temperatures given are those corresponding to the whole period of observations at each station, consequently do not represent the extremes reached each year and are to be considered as exceptional, showing the extreme amplitude of temperature observed during the entire series.

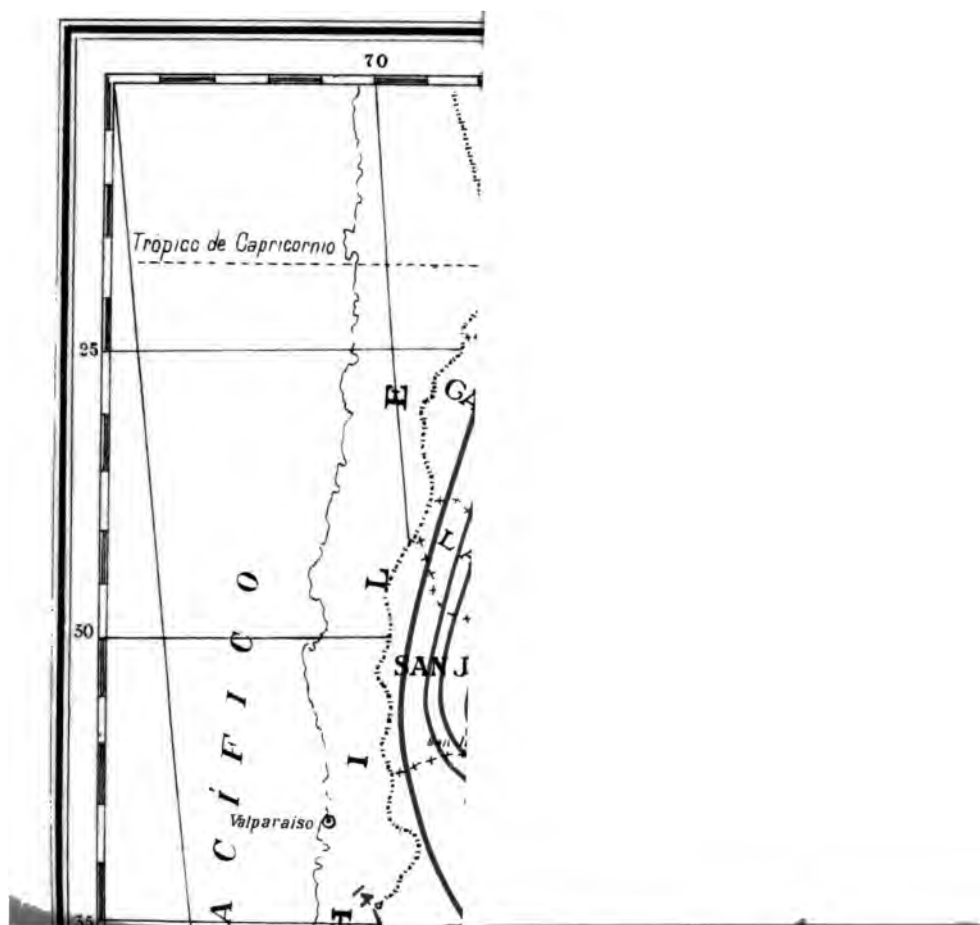
TEMPERATURE: MONTHLY MEAN AND EXTREMES

(CENTIGRADE)

LITTORAL REGION

	Asunción (Paraguay)			Formosa			Santa María (Misiones)			Corrientes		
Latitude	25° 18'			26° 12'			28° 4'			27° 28'		
Longitude	57° 40'			58° 6'			55° 33'			58° 50'		
MONTH	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
January	27.2	40.8	15.0	27.0	39.8	14.3	26.0	37.5	12.2	27.0	40.2	13.0
February	27.0	41.3	11.4	26.6	40.0	14.6	24.8	36.3	12.0	26.7	41.5	14.0
March	25.8	39.2	11.0	25.2	37.0	14.6	23.6	35.2	13.1	25.4	38.5	11.0
April	22.4	37.6	5.8	21.5	37.5	3.8	19.1	32.0	7.0	21.6	38.0	9.0
May	19.1	34.6	1.0	18.0	31.5	4.5	15.2	28.2	0.1	18.2	32.0	5.0
June	16.6	32.2	0.8	16.3	30.2	0.5	9.7	27.7	0.1	15.5	28.5	3.0
July	18.6	33.6	2.4	17.1	31.5	1.9	15.0	28.2	1.0	16.3	31.5	3.0
August	19.4	38.0	1.4	18.8	36.0	1.9	14.1	31.2	2.1	17.5	33.0	6.0
September	20.1	39.0	4.0	19.5	36.0	4.2	14.0	31.0	0.1	19.0	38.9	7.0
October	22.8	41.0	7.2	22.1	37.8	9.8	18.3	32.2	1.3	21.5	37.5	12.0
November	24.8	41.0	9.2	24.5	38.8	11.8	22.1	36.0	8.3	24.0	39.0	12.0
December	27.1	41.4	8.2	25.7	39.8	15.3	26.5	42.0	8.2	26.4	40.7	12.0
Annual	22.6	41.4	0.8	21.9	40.0	0.5	19.0	42.0	2.1	21.6	41.5	0.0

	Goya			Paraná			Uruguay			Ceres (Santa Fé)		
Latitude	29° 9'			31° 44'			32° 30'			29° 55'		
Longitude	59° 16'			60° 31'			58° 13'			62° 0'		
MONTH	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
January	25.7	38.4	11.8	25.0	38.2	12.8	24.4	39.5	11.0	26.6	46.0	8.0
February	25.2	40.2	12.9	24.8	39.2	11.6	24.3	38.0	11.0	26.8	45.5	8.0
March	23.8	36.5	11.0	23.0	36.5	6.5	22.5	36.5	4.0	23.9	39.5	1.0
April	19.6	35.0	5.0	18.6	39.2	6.6	18.9	35.0	3.0	19.0	37.6	4.0
May	16.1	30.2	0.2	14.8	29.8	3.8	15.2	30.0	0.0	16.5	33.5	4.0
June	13.7	27.6	0.0	12.0	25.3	1.2	12.1	27.0	0.0	13.3	31.0	6.0
July	14.6	30.7	0.5	12.4	28.0	0.6	12.0	29.0	2.5	13.7	34.0	5.0
August	15.8	34.0	1.0	13.8	32.2	0.0	13.5	33.0	1.0	13.1	38.0	7.0
September	17.3	36.5	3.2	16.0	39.0	4.0	15.2	36.5	1.0	16.9	44.0	0.0
October	19.9	36.2	4.6	18.6	36.6	4.5	17.5	35.0	1.0	20.3	42.0	0.0
November	22.7	36.4	1.9	21.9	36.8	7.5	21.1	38.0	4.0	23.2	41.5	4.0
December	25.2	39.4	4.3	24.2	38.8	11.8	23.9	40.8	6.0	25.7	42.5	7.0
Annual	20.0	40.2	0.5	18.8	39.2	1.2	18.4	40.8	2.5	19.9	46.0	7.0



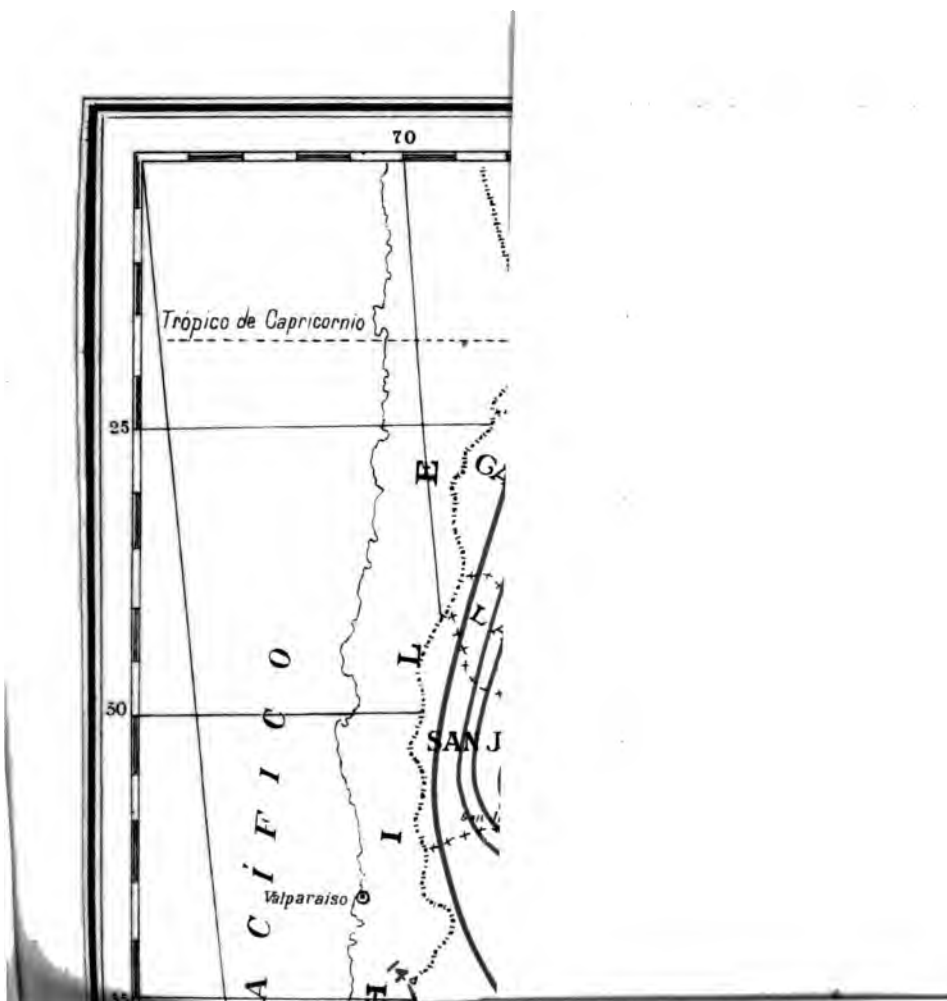
TEMPERATURE: MONTHLY MEAN AND EXTREMES

(CENTIGRADE)

LITTORAL REGION

	Asunción (Paraguay)			Formosa			Santa María (Misiones)			Corrientes		
Latitude	25° 18'			26° 12'			28° 4'			27° 28'		
Longitude	57° 40'			58° 6'			55° 33'			58° 50'		
MONTH	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
January.....	27.2	40.8	15.0	27.0	39.8	14.3	26.0	37.5	12.2	27.0	40.2	13.0
February.....	27.0	41.3	11.4	26.6	40.0	14.0	24.8	36.3	12.0	26.7	41.5	14.5
March.....	25.8	39.2	11.0	25.2	37.0	14.8	23.6	35.2	13.1	25.4	38.5	11.5
April.....	22.4	37.6	5.8	21.5	37.5	3.8	19.1	32.0	7.0	21.6	38.0	9.0
May.....	19.1	34.6	1.0	18.0	31.5	4.5	15.2	28.2	0.1	18.2	32.0	5.5
June.....	16.6	32.2	0.8	16.3	30.2	0.5	9.7	27.7	0.1	15.5	28.5	3.2
July.....	18.6	33.6	2.4	17.1	31.5	1.3	15.0	28.2	1.0	16.3	31.5	3.5
August.....	19.4	38.0	1.4	18.8	36.0	1.3	14.1	31.2	2.1	17.5	33.0	6.0
September.....	20.1	39.0	4.0	19.5	36.0	4.3	14.0	31.0	0.1	19.0	38.9	6.0
October.....	22.8	41.0	7.2	22.1	37.8	9.8	18.3	32.2	1.3	21.5	37.5	7.0
November.....	24.8	41.0	9.2	24.5	38.8	11.8	22.1	36.0	8.3	24.0	39.0	12.5
December.....	27.1	41.4	8.2	25.7	39.8	15.3	26.5	42.0	8.2	26.4	40.7	12.5
Annual.....	22.6	41.4	0.8	21.9	40.0	0.5	19.0	42.0	2.1	21.6	41.5	3.2

	Goya			Paraná			Uruguay			Ceres (Santa Fé)		
Latitude	29° 9'			31° 44'			32° 30'			29° 55'		
Longitude	59° 16'			60° 31'			58° 13'			62° 0'		
MONTH	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
January.....	25.7	38.4	11.8	25.0	38.2	12.8	24.4	39.5	11.0	26.6	46.0	8.5
February.....	25.2	40.2	12.9	24.8	39.2	11.6	24.3	38.0	11.0	26.8	45.5	8.5
March.....	23.8	36.5	11.0	23.0	36.5	6.5	22.5	36.5	4.0	23.9	39.5	4.0
April.....	19.6	35.0	5.0	18.6	39.2	6.6	18.9	35.0	3.0	19.3	37.6	1.5
May.....	16.1	30.2	0.2	14.8	29.8	3.8	15.2	30.0	0.0	16.5	33.5	—
June.....	13.7	27.6	0.0	12.0	25.3	1.2	12.1	27.0	0.0	13.3	31.0	—
July.....	14.6	30.7	—0.5	12.4	28.0	0.6	12.0	29.0	2.5	13.7	34.0	—
August.....	15.8	34.0	1.0	13.8	32.2	0.0	13.5	33.0	1.0	13.1	38.0	—
September.....	17.3	36.5	3.2	16.0	39.0	4.0	15.2	36.5	1.0	16.9	44.0	—
October.....	19.9	36.2	4.6	18.6	36.6	4.5	17.5	35.0	1.0	20.3	42.0	—
November.....	22.7	36.4	1.9	21.9	36.8	7.5	21.1	38.0	4.0	23.2	41.5	—
December.....	25.2	39.4	4.3	24.2	38.8	11.8	23.9	40.8	6.0	25.7	42.5	—
Annual.....	20.0	40.2	0.5	18.8	39.2	1.2	18.4	40.8	2.5	19.9	46.0	—



	Rosario (Santa Fé)			Buenos Aires			Bahía Blanca (Bs. Aires)			Patagones (Buenos Aires)		
Latitude	32° 57'			34° 37'			38° 45'			40° 50'		
Longitude	60° 38'			58° 22'			62° 11'			62° 57'		
MONTH	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
January.....	24.7	41.2	6.9	23.7	37.0	10.0	23.2	41.0	7.5	23.4	39.3	13.4
February.....	24.3	44.0	3.9	23.1	39.5	9.0	22.2	40.0	7.5	21.1	36.2	9.3
March.....	21.2	37.0	1.4	21.0	34.0	6.4	19.4	40.0	3.0	18.7	35.0	9.2
April.....	16.9	34.4	0.6	16.7	29.2	1.7	15.0	31.1	1.1	13.0	27.2	0.0
May.....	13.3	31.4	— 4.3	13.3	26.0	0.3	11.2	29.5	— 2.0	10.1	21.2	0.0
June.....	9.6	28.7	— 7.8	10.6	24.0	— 1.0	8.3	22.0	— 5.0	7.6	18.0	0.0
July.....	10.9	28.9	— 6.2	10.2	24.3	— 2.0	8.1	24.0	— 5.0	7.4	22.0	— 1.9
August.....	11.3	30.6	— 6.1	11.6	24.3	— 0.0	9.4	28.3	— 8.0	8.3	27.0	— 1.9
September.....	13.9	35.4	— 5.0	13.4	29.9	— 1.0	12.0	31.4	— 5.0	10.6	26.0	1.0
October.....	16.8	37.9	— 1.7	16.4	30.4	— 3.0	15.0	33.0	— 3.0	15.2	31.2	4.1
November.....	20.8	38.6	— 0.6	19.9	35.2	— 4.7	18.5	37.0	— 1.0	18.0	37.0	8.1
December.....	23.7	40.6	— 4.3	22.4	37.8	— 8.0	21.4	39.0	— 4.0	20.1	35.1	12.0
Annual.....	17.2	44.0	— 7.8	16.8	39.5	— 2.0	15.3	41.0	— 8.0	14.5	39.3	— 1.9

MEDITERRANEAN REGION

	Tucumán			Santiago del Estero			Córdoba			San Luis		
Latitude	26° 51'			27° 48'			31° 25'			33° 19'		
Longitude	65° 12'			64° 16'			64° 12'			66° 20'		
MONTH	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
January.....	25.0	44.4	12.3	27.7	43.2	16.2	23.4	41.8	5.8	24.7	38.1	11.5
February.....	24.2	44.0	9.9	26.4	41.0	15.2	22.7	43.7	7.0	23.4	37.9	10.5
March.....	22.2	36.9	8.0	24.6	37.0	11.2	20.4	37.3	2.5	20.2	38.7	9.8
April.....	19.1	33.2	5.0	20.4	32.5	7.0	16.3	34.1	— 3.8	15.1	28.0	3.6
May.....	15.2	31.0	0.2	19.9	29.2	4.4	13.0	33.0	— 5.8	11.4	24.5	— 1.8
June.....	12.2	33.8	— 3.2	13.2	29.3	— 0.3	9.8	29.1	— 8.2	7.9	22.8	— 1.3
July.....	12.6	37.3	— 2.5	14.9	29.9	— 1.0	10.6	31.5	— 8.9	10.0	26.0	— 4.6
August.....	14.8	36.7	— 3.0	16.2	35.2	— 2.5	12.2	36.5	— 6.8	11.0	29.6	— 3.0
September.....	17.7	41.2	— 0.6	18.9	40.6	— 3.2	14.8	37.5	— 4.9	14.5	31.7	0.9
October.....	20.5	41.2	— 2.1	22.8	40.0	— 7.9	17.8	40.0	— 0.2	18.1	34.5	5.3
November.....	23.1	41.3	— 7.2	26.0	41.0	— 13.7	20.9	39.4	— 2.2	20.0	35.3	6.9
December.....	24.6	40.6	— 8.2	27.4	40.7	— 12.3	23.0	39.7	— 4.2	22.2	39.4	7.8
Annual.....	19.3	44.4	— 3.2	21.3	43.2	— 2.5	17.1	43.7	— 8.9	16.5	39.4	— 4.6

ANDINE REGION

	Jujuy			Salta			Catamarca			La Rioja			San Juan			Mendoza		
Latitude	24° 11'			24° 46'			28° 28'			29° 19'			31° 32'			32° 53'		
Longitude	65° 22'			65° 24'			65° 55'			67° 1'			68° 31'			68° 49'		
MONTH	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
January.....	22.8	33.2	13.4	22.1	33.0	12.0	28.2	43.1	15.4	27.3	42.6	15.6	26.6	44.0	10.0	24.4	39.4	8.1
February.....	21.7	34.6	15.0	21.6	31.0	13.0	26.8	40.2	16.2	20.0	41.0	13.3	26.1	43.5	10.0	23.4	38.4	7.4
March.....	20.8	30.5	12.5	19.8	31.0	11.9	25.1	38.0	14.2	23.6	38.5	13.3	23.1	42.8	5.0	20.1	34.8	3.6
April.....	17.8	26.5	10.5	16.8	27.8	5.0	18.7	35.2	8.9	19.7	32.0	9.0	18.0	37.0	3.0	16.0	31.0	— 3.0
May.....	14.7	24.2	2.5	13.8	27.6	— 0.1	15.8	30.8	4.0	14.5	26.4	3.0	13.1	34.0	— 2.5	11.8	28.4	— 5.1
June.....	11.4	28.0	0.0	10.6	27.0	— 4.3	9.9	21.0	0.8	10.6	24.0	0.0	9.1	29.0	— 4.0	8.3	25.1	— 8.4
July.....	15.1	33.0	3.5	11.6	29.0	— 2.0	12.8	30.5	1.4	12.3	25.6	0.0	10.0	31.8	— 5.5	8.3	28.0	— 6.5
August.....	14.7	29.5	2.0	14.0	30.9	— 1.0	16.2	33.0	— 0.4	15.1	34.5	1.5	12.4	32.8	— 2.5	11.3	30.0	— 7.5
September.....	16.1	31.0	2.5	16.5	32.0	0.5	20.0	37.8	6.7	18.6	39.0	7.0	15.6	37.0	— 0.5	14.5	36.2	— 4.3
October.....	19.2	35.0	6.5	19.0	35.0	6.1	22.8	40.4	11.1	22.1	39.4	8.1	19.5	40.6	3.0	18.2	36.7	— 3.6
November.....	21.6	33.0	9.0	21.6	33.4	12.2	25.7	40.4	14.2	25.1	40.0	12.0	23.6	41.0	5.0	21.9	40.0	1.0
December.....	22.2	34.0	12.0	22.4	33.1	9.4	27.7	41.6	16.7	26.5	41.0	14.9	26.0	45.5	11.4	23.6	41.5	5.7
Annual.....	18.2	35.0	0.0	17.5	35.0	— 4.3	20.8	43.1	— 0.4	19.6	42.6	0.0	18.6	45.5	— 5.5	16.8	41.5	— 8.4

SOUTHERN TERRITORIES

	Chos Malal (Neuquen)			Rawson (Chubut)			Staten Island			Ushuaia		
Latitude	37° 27'			43° 17'			54° 23'			54° 52'		
Longitude	69° 50'			65° 5'			63° 47'			68° 7'		
MONTH	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
January.....	22.0	38.0	9.0	21.0	39.0	7.0	9.2	18.6	2.4	11.5	27.0	0.4
February.....	22.8	39.1	8.5	20.1	38.0	5.4	8.6	19.0	2.2	10.3	24.6	0.0
March.....	17.6	33.5	2.5	17.5	35.0	3.2	7.7	17.4	1.2	8.2	21.0	1.5
April.....	13.6	27.8	0.0	12.3	30.0	4.0	6.2	16.8	2.5	5.3	17.4	6.0
May.....	9.4	25.5	9.0	8.7	25.0	6.0	4.6	11.3	3.5	3.4	13.4	4.6
June.....	5.7	20.1	8.0	5.3	19.0	9.0	3.0	9.5	7.0	1.1	13.2	11.0
July.....	7.5	24.0	10.0	6.1	24.0	10.2	2.6	9.0	7.8	0.9	12.0	10.6
August.....	8.0	24.0	7.5	6.9	22.0	9.0	3.0	8.6	10.0	1.9	14.8	11.6
September.....	10.3	26.9	3.0	10.5	30.0	2.0	3.9	12.2	9.4	4.8	16.3	5.8
October.....	12.9	29.4	0.0	14.1	31.0	2.0	4.9	15.0	2.2	6.9	21.2	2.0
November.....	18.7	35.4	2.5	17.1	33.0	1.2	6.8	15.2	0.2	9.2	23.0	0.4
December.....	20.9	35.2	5.5	19.5	36.2	5.0	8.1	17.9	1.6	9.8	26.8	1.5
Annual.....	14.1	39.1	10.0	13.3	39.0	10.2	5.7	19.0	10.0	6.1	27.0	11.6

The mean extreme range of the annual variation of temperature, in the various regions of the Republic, is expressed by the following figures :

Littoral		Mediterranean		Andine		Southern territories	
Formosa	10°	Tucumán	13°	Salta	12°	Rawson (Chub.)	16°
Corrientes	11	S. del Estero	15	Jujuy	11	Ushuaia	12
Paraná (E. Ríos)	13	Córdoba	14	Catamarca	17	Staten Island	6
Rosario Sta. Fé	16	San Luis	16	La Rioja	17		
Buenos Aires	14			San Juan	17		
B. Blanca	16			Mendoza	17		
				Chos Malal	17		

Frosts of sufficient intensity to cause damage to vegetation are extremely rare in the territories of Misiones and Formosa and the province of Corrientes, excepting in the elevated region of Misiones, where, in most years the temperature falls below freezing in the months of July and August. In the city of Buenos Aires it very rarely freezes. This exemption from frost, in the city itself, is doubtless due to the shelter afforded by the agglomeration of buildings, as in the outskirts they are of comparatively frequent occurrence from June to September.

In contrast to the above mentioned conditions, in the territories of Chubut, Santa Cruz and Tierra del Fuego, the period of frost is prolon-

ged to the last month of spring, beginning in the first month of autumn. Records over a long term of years from these regions show temperatures below freezing in every month of summer, but frosts in every month in the same year seldom occur.

The following table gives the annual mean number of days of temperature below freezing in various regions of the Republic and the months corresponding.

		Days of frost	Period
Jujuy	(Capital)	3	July
Salta	"	6	May to August
Catamarca	"	2	July to August
La Rioja	"	2	" "
San Juan	"	4	May to September
Mendoza	"	21	April to September
Santiago del Estero	"	2	June to August
Córdoba	"	23	May to September
San Luis	"	6	May to August
Santa Fé	(Northern Section)	3	June to August
"	(Rosario)	31	May to October
Entre Rios	(Concordia)	2	May to August
Buenos Aires	(Trenque Lauquen)	12	May to September
"	Bahía Blanca	18	April to October
La Pampa	(Gral. Acha)	56	" "
Neuquén	(Chos Malal)	25	May to October
Chubut	Rawson	40	April to September
Santa Cruz		133	February to November
Staten Island		39	March to December

The temperature of the soil at various depths, as recorded in Coroba, will be found in the table below. These figures may be considered as applicable to the greater part of the pampa region.

Mean temperature of the soil.

Month	Surface	At a depth of					
		m. 0.10	m. 0.25	m. 0.50	m. 1.20	m. 1.70	m. 3.75
	0	0	0	0	0	0	0
January	23.1	21.6	21.4	21.3	20.2	19.5	17.9
February	22.4	21.5	21.4	21.4	20.8	20.2	18.4
March	19.9	19.4	19.6	20.1	20.5	20.3	18.9
April	16.0	16.1	16.5	17.6	19.2	19.5	19.3
May	12.1	12.8	13.6	15.1	17.5	18.3	19.3
June	8.7	9.6	10.2	12.2	15.5	16.7	19.1
July	9.6	12.2	10.6	11.7	14.1	15.3	18.6
August	11.3	11.3	11.6	12.3	14.0	14.6	17.8
September	13.9	13.3	13.1	13.3	14.2	14.8	17.4
October	17.0	16.0	15.7	15.6	15.4	15.5	17.2
November	20.1	18.7	18.1	17.7	16.8	16.6	17.1
December	22.5	21.1	20.7	20.2	18.8	18.1	17.4
Annual...	16.4	16.0	16.0	16.5	17.3	17.4	18.2

RELATIVE HUMIDITY. — The degree of humidity of the air, within the limits of Argentine territory, varies more, relatively, than the temperature or any other of the atmospheric elements. In the northern and southern extremities — Formosa and Tierra del Fuego — the greatest amount of humidity is found, while the lowest prevails in the northern districts of the andine region.

In the same latitude, between the territory of Formosa and the slopes of the Cordillera, the degree of humidity approximates respectively to the maximum and minimum recorded in the Republic.

Throughout the whole of the littoral region there is a high degree of humidity, especially in the northern districts, comprising the territories of Formosa, Chaco, Misiones and the province of Corrientes. In the provinces of Entre Rios, Santa Fé and Buenos Aires the degree of humidity is less, on an average, by 20°, as compared with the region to the North. The least humidity occurs in the summer and the greatest in winter.

In the mediterranean region the humidity, in general, is notably less than in the littoral districts. In this region autumn is the season of greatest humidity, and spring of the lowest.

In the andine region, north of latitude 35°, we find the minimum amount of humidity recorded in the Republic but it is subject to great variations. Cases are not rare, in which the humidity has not been more than 2 or 3 per cent, and numerous observations of the psychro-

meter, made with the utmost care, and reduced by the formulae in general use, have shown a condition of complete dryness of the atmosphere.

The relative humidity, derived from the observations made at 7 a. m., 2 p. m. and 9 p. m. at 15 stations, fairly distributed throughout the country, for the purpose of determining the normal humidity prevailing in various regions of the Republic, will be found in the following table.

	Villa Formosa Formosa	Goya (Corrientes)	Concordia (Entre Ríos)	Rosario (Santa Fé)
January	o/o	o/o	o/o	o/o
February	70	74	63	72
March	71	75	67	69
April	75	79	72	77
May	77	79	78	82
June	82	84	79	86
July	81	86	83	86
August	81	84	82	86
September	73	79	78	83
October	72	76	73	79
November	71	74	70	75
December	73	73	65	74
Annual	72	72	64	73
Annual	75	78	73	73

	Buenos Aires	Bahía Blanca	Salta	Tucumán	Catamarca	San Juan	Mendoza	Chos Malal (Neuquén)	16 de Octubre (Chubut)	Staten Island	Córdoba
January	o/o	o/o	o/o	o/o	o/o	o/o	o/o	o/o	o/o	o/o	o/o
February	73	56	76	78	49	52	52	34	71	77	64
March	74	59	77	80	51	54	56	36	69	78	65
April	79	65	81	85	56	57	59	44	75	79	73
May	82	69	77	85	63	60	64	48	82	82	71
June	83	72	75	83	62	61	66	51	88	84	68
July	86	77	69	81	71	63	63	60	92	87	67
August	86	71	64	75	69	61	61	58	91	86	63
September	83	70	58	69	53	57	55	55	87	84	57
October	79	64	58	62	42	52	45	40	81	81	55
November	76	58	59	67	44	50	44	40	77	99	59
December	72	55	63	70	45	49	44	36	75	76	60
Annual	72	53	68	74	46	49	48	33	71	76	63
Annual	79	64	69	76	54	55	55	45	80	81	64

RAIN-FALL.—The geographical distribution of the rainfall in the Argentine Republic presents great differences. The only region that has

a superabundance of rain is the southern part of the Neuquén territory on the eastern slopes of the Cordilleras, between 38° and 41° of latitude where the observations made during the last few years show a mean fall of more than 2000 millimeters. At 200 kilometers to the east of the district of greatest precipitation, the amount diminishes to less than 400 mm., which is about the normal quantity that falls in the territories of Río Negro, Chubut and Santa Cruz.

To the north of latitude 35° , the decrease in the rainfall from east to west — from the Uruguay river to the slopes of the Andes — is at the rate of 100 mm. of rain to each 100 kilometers of distance. For example: the normal quantity precipitated in the districts bordering on the River Plate is, approximately, 1000 mm. and following the same degree of latitude to the southern part of the province of Mendoza, a distance of 800 kilometers, the quantity decreases to 200 mm. From the territory of Misiones to the province of Catamarca, distant about 1,500 kilometers — the broadest section of the Republic — we find the same rate of decrease, as the rainfall in Misiones is about 1,700 mm. while in Catamarca it has diminished to 200 mm.

In general, the decrease in rainfall from east to west is gradual, especially over the prairie regions. We see the influence exercised by the San Luis, Córdoba and Aconquija sierras and their ramifications, in the interception of the aqueous vapor carried by the prevailing north and north-west winds, thereby causing a marked increase in the amount of precipitation on the slopes to windward as compared with that of the opposite side.

Referring to the accompanying map, it will be seen that the normal rainfall throughout the littoral and a great portion of the mediterranean regions to the north of latitude 40° , is ample for agricultural purposes, but in the andine districts the rainfall is so slight that only by means of irrigation is the cultivation of the soil rendered possible.

The distribution of the annual rainfall is as variable as its geographical distribution. North of latitude 38° the year may be divided into two seasons: *rainy and dry*. The first comprises the months of October to March, and the second from April to September. This designation of seasons refers as much to the amount as to the frequency. In the littoral districts, the difference in the amount of rain that usually falls in these seasons is less marked in the southern section than in the northern. For example: in Buenos Aires 55 per cent of the annual amount falls in the rainy season, and in Corrientes 65 per cent. In the mediterranean region, which is well represented by the observations at Córdoba, the rainfall is 86 per cent in summer and 14 per cent in winter, while in Salta the difference is still greater, being 96 per

cent against 4 per cent. South of latitude 38° the distribution is more uniform, as much rain falling in winter as in summer, with exception of the region of more abundant precipitation in the neighbourhood of the Andes, where the greater rainfall is during the winter, causing, at times, inundations in the valleys of the Negro and Chubut rivers.

In the following tables the figures give the mean monthly rainfall for a sufficient number of places to show the annual distribution.

MEAN MONTHLY RAINFALL

LITTORAL

MONTH	Posadas (Misiones)	Formosa	Corrientes	Garrucho (Corrientes)	Goya (Corrientes)	Monte Caseros (Corrientes)	Concordia (Entre Rios)	Paraná (Entre Rios)	Ceres (Santa Fé)	Rosario	Buenos Aires	Azul (Buenos Aires)	Mar del Plata (Bs. Aires)	Tres Arroyos (Bs. Aires)	Bahía Blanca (Bs. Aires)
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
January.....		167	158	227	127	71	101	112	145	103	74	78	50	81	39
February.....		173	135	122	96	92	102	96	94	100	66	61	62	44	56
March.....		168	135	149	114	77	121	95	84	140	117	121	69	88	70
April.....		126	137	193	84	80	127	96	48	67	72	55	50	63	46
May.....		87	95	109	68	95	78	46	22	56	76	49	71	65	31
June.....		83	94	135	35	66	66	22	11	35	71	33	34	44	30
July.....		38	37	80	41	59	69	23	10	39	55	58	70	44	27
August.....		32	37	100	35	103	65	32	47	42	59	62	54	36	28
September.....		76	66	101	50	84	61	51	26	45	79	45	39	34	40
October.....		157	113	123	113	113	84	108	77	78	92	90	54	56	55
November.....		160	128	123	98	85	71	91	105	102	73	69	44	61	55
December.....		184	115	96	112	107	122	126	116	145	99	97	62	57	48
Annual.....		1451	1250	1558	973	1032	1067	898	785	952	933	818	659	673	525

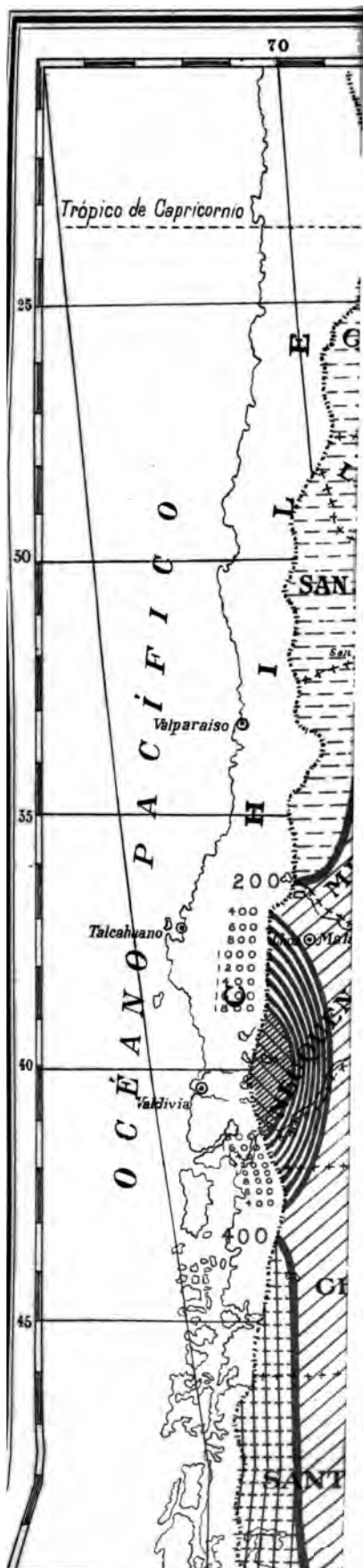
MEDITERRANEAN

MONTH	Tucumán	Santiago del Estero	Córdoba	Rio Cuarto (Córdoba)	San Luis	La Carlota (Pampa)	Gral. Roca (Rio Negro)
	mm.	mm.	mm.	mm.	mm.	mm.	mm.
January.....	191	71	115	145	56	37	7
February.....	180	68	109	67	71	56	10
March.....	161	106	90	67	80	82	12
April.....	58	34	36	38	36	26	13
May.....	25	14	19	18	10	39	18
June.....	15	8	8	35	10	32	30
July.....	11	6	4	5	2	26	11
August.....	13	2	11	28	6	24	9
September.....	15	18	22	54	19	35	13
October.....	59	37	63	48	39	41	11
November.....	94	55	104	91	106	50	7
December.....	143	78	118	107	112	59	6
Annual....	965	497	696	703	547	547	147

ANDINE

MONTH	Ing. Esperanza (Jujuy)	Salta	Catamarca	La Rioja	San Juan	Mendoza	Chos Malal (Neuquén)
	mm.	mm.	mm.	mm.	mm.	mm.	mm.
January.....	120	137	76	58	12	23	0
February.....	104	121	65	51	28	31	5
March.....	73	101	51	38	6	24	26
April.....	77	28	17	10	3	11	2
May.....	15	9	13	0	2	6	11
June.....	13	0	4	2	1	6	19
July.....	2	0	1	3	0	4	51
August.....	4	2	3	2	1	6	42
September.....	4	5	8	3	1	12	0
October.....	23	13	16	18	4	20	15
November.....	44	56	35	35	3	16	18
December.....	83	85	33	52	11	18	2
Annual....	562	558	321	272	72	177	191

As regards the frequency of rains, the following table shows the average number of days on which rain or snow falls in different parts of the country, counting as days of precipitation those on which the amount is sufficient to be recorded by the pluviometer:



1. The first part of the paper is devoted to a discussion of the general principles of the theory of the structure of the atom. It is shown that the structure of the atom is determined by the laws of quantum mechanics, and that the structure of the atom is determined by the laws of quantum mechanics.

2. The second part of the paper is devoted to a discussion of the general principles of the theory of the structure of the atom. It is shown that the structure of the atom is determined by the laws of quantum mechanics, and that the structure of the atom is determined by the laws of quantum mechanics.

3. The third part of the paper is devoted to a discussion of the general principles of the theory of the structure of the atom. It is shown that the structure of the atom is determined by the laws of quantum mechanics, and that the structure of the atom is determined by the laws of quantum mechanics.

MEAN NUMBER OF DAYS OF PRECIPITATION

Month	Formosa	Corrientes	Goya (Corrientes)	Concordia	Paraná
January	7.1	5.1	5.4	3.5	6.7
February	4.6	3.8	3.5	6.0	3.6
March	4.7	5.0	3.8	5.8	6.0
April	5.1	4.5	3.2	6.2	4.7
May	4.2	3.6	2.6	4.2	2.4
June	3.9	2.9	1.9	5.8	1.6
July	2.4	2.7	1.7	4.2	2.4
August	2.1	1.8	1.8	2.8	2.6
September	4.2	4.2	2.2	3.0	2.0
October	5.5	4.7	4.2	5.2	5.7
November	6.7	5.1	4.1	4.8	5.7
December	5.0	4.8	4.8	4.2	6.8
Annual	55.5	48.2	39.2	55.7	50.3
Month	Rosario	Buenos Aires	Bahía Blanca	Salta	San Luis
January	9.1	4.8	4.4	9.7	9.3
February	7.4	5.6	5.4	8.8	7.3
March	6.5	4.9	5.4	8.0	7.0
April	6.4	4.3	4.8	2.1	4.3
May	5.6	4.0	3.7	0.4	2.2
June	5.5	5.4	3.2	0.1	3.2
July	4.7	3.2	2.2	0.0	1.0
August	4.8	4.1	2.7	0.2	2.8
September	4.6	5.0	4.6	1.2	3.5
October	7.6	6.0	6.6	2.4	5.2
November	5.7	6.0	5.9	6.0	6.2
December	9.5	5.9	4.6	7.2	6.8
Annual	77.4	59.2	53.5	46.1	58.8
Month	Tucumán	Santiago del Estero	Catamarca	San Juan	Mendoza
January	8.5	5.0	6.3	3.0	5.9
February	9.4	5.1	4.0	1.9	5.4
March	10.1	5.9	4.0	1.2	3.8
April	5.3	4.4	3.0	0.6	2.8
May	3.4	1.5	2.0	0.4	2.3
June	2.9	1.1	2.0	0.4	1.7
July	1.1	0.9	0.0	0.8	1.9
August	1.1	0.6	0.2	0.5	1.7
September	2.5	1.7	0.5	0.9	2.4
October	5.8	4.0	2.8	1.3	4.0
November	6.6	5.8	4.3	1.6	4.9
December	8.7	5.2	4.0	2.9	5.3
Annual	65.4	41.2	33.1	15.6	42.1

Month	Chos Malal (Neuquén)	Córdoba	Rawson (Chubut)	C. 16 de Octubre (Chubut)	Staten Island	Ushuaia (Tierra del Fuego)
January	0.0	8.9	3.9	3.0	20.0	16.2
February	1.5	7.6	3.4	3.5	18.7	14.5
March	1.6	8.0	5.7	3.6	21.6	13.9
April	0.5	4.6	6.3	6.8	20.4	14.3
May	0.8	3.3	6.1	7.8	24.7	15.5
June	2.2	2.2	7.8	4.6	25.9	12.7
July	3.6	2.4	4.2	9.2	24.4	10.7
August	3.0	2.6	6.6	4.2	20.6	9.8
September	2.0	4.1	6.4	2.6	18.4	7.2
October	1.2	7.8	5.4	3.0	17.8	13.9
November	1.8	9.4	4.8	2.6	17.6	13.0
December	0.5	9.4	6.2	2.0	21.4	15.3
Annual	18.7	70.3	66.8	52.9	251.5	156.7

RAINFALL IN BUENOS AIRES

Year	Amount	Year	Amount	Year	Amount	Year	Amount	Year	Amount
	mm.		mm.		mm.		mm.		mm.
1861	564	1870	962	1879	654	1888	1001	1897	817
1862	1025	1871	715	1880	841	1889	1355	1898	1002
1863	764	1872	733	1881	932	1890	870	1899	1124
1864	775	1873	812	1882	1015	1891	965	1900	2004
1865	792	1874	1012	1883	1256	1892	689	1901	887
1866	844	1875	829	1884	1109	1893	596	1902	789
1867	578	1876	973	1885	915	1894	798	1903	1044
1868	1094	1877	884	1886	966	1895	1345		
1869	1176	1878	1016	1887	707	1896	834		

Mean of 43 years 932 mm.

RAINFALL IN CÓRDOBA

Year	Amount	Year	Amount	Year	Amount	Year	Amount	Year	Amount
	mm.		mm.		mm.		mm.		mm.
1873	899	1880	420	1887	480	1894	766	1901	551
1874	679	1881	751	1888	539	1895	458	1902	669
1875	563	1882	617	1889	1007	1896	677	1903	988
1876	944	1883	687	1890	635	1897	828		
1877	494	1884	724	1891	822	1898	634		
1878	991	1885	705	1892	884	1899	741		
1879	717	1886	526	1893	697	1900	614		

Mean of 31 years 700 mm.

In the littoral region, to the north of the province of Entre Ríos, snow is unknown and in the andine region, in the same latitude, it only falls on the slopes of the Cordilleras. The mountain ranges of San Luis and Córdoba are frequently covered with snow, but it is quite exceptional for it to reach the level of the adjoining prairie. In the city of Córdoba, between 1873 and 1886, snow fell on nine occasions in sufficient quantity to be visible on the ground, but during the past 17 years this has occurred only once,—in the winter of 1903. In the southern and western sections of that province and in the territory of the Pampa snow falls so rarely that it is not worthy of mention. Farther south, in the territories of Chubut and Santa Cruz, it is of frequent occurrence from May to October, but, outside the zone at the foot of the Andes, the ground is seldom covered for more than a few days and the depth is rarely more than 20 to 30 centimeters. In

Tierra del Fuego and the adjacent islands snow has fallen in every month of the year, but is exceptional in December and January.

As regards the distribution of thunderstorms, the maximum number of these occur in the littoral region and the minimum in the extreme south of the continent. Observations at Staten Island, extending over a period of nine years, contain only eight anotations of thunder and lightning. In Tierra del Fuego the records of six years mention a few occurrences of distant lightning but only one instance of rain accompanied by electrical discharges. Following the coast northwards these storms increase in frequency as one approaches the region of the La Plata estuary where, apparently, they reach their maximum frequency with a mean annual number of 52, according to the Buenos Aires records. The mean number in Bahia Blanca is 16 and 10 in Rawson, Chubut. From Buenos Aires northwards we find a perceptible diminution, in Asuncion (Paraguay), the annual number only reaching 32. In the pampa region thunderstorms are frequent from October to March. The records of Córdoba give 45 as the annual mean, and this number may be taken as representative of the storms in the central portion of the interior of the country. In the andine regions these storms are less frequent than in the mediterranean. The records of Mendoza, comprising a period of 42 years, with but few interruptions, show 27 per annum, this number decreasing towards the south, following the base of the Cordillera. In Chos Malal, capital of the Neuquén territory, this phenomenon is of rare occurrence. In the north of the andine region thunderstorms are less frequent than in the provinces of Mendoza and San Juan.

To the north of latitude 40° the relation between the annual distribution of the number of rains and thunderstorms is very close, and the division of the year into rainy and dry seasons is equally applicable to thunderstorm periods. In Buenos Aires 74 per cent of the total number of these storms occur between the months of October and March, 85 per cent in Córdoba and 92 per cent in Mendoza.

WINDS — The winds of the Argentine Republic may be divided into two distinct systems, according to their mean directions. To the north of latitude 35° the predominant wind is from the north or north-east, while to the south of 40° it is from the west and south-west: In the andine region we have the dry, hot winds known as the "Zonda", which usually blow from north or north-west and, at times, with such intensity as to make breathing difficult. These commonly spring up about noon and lasting till after sunset but, occasionally, continue without interruption for two or three days, blowing with the force of a

hurricane; they are more frequent and intense in spring, especially in the months of September and October.

In the mediterranean and littoral regions the heat which usually prevails with northerly winds generally terminates with a strong wind from the south-west, known as the "Pampero". These winds are more frequent in winter and spring, although they occur throughout the year.

The normal frequency of the wind from the eight principal points of the compass and the number of calms are shown by the following figures giving the mean relative frequency in the scale of 1000 winds in the year:

RELATIVE FREQUENCY OF WINDS

	N	NE	E	SE	S	SW	W	NW	Calm
Corrientes.....	265	88	131	81	397	19	8	3	7
Concordia.....	147	209	160	142	130	102	42	50	18
Rosario.....	157	173	160	122	163	71	30	52	72
Buenos Aires.....	154	168	195	111	106	123	72	69	1
Bahía Blanca.....	198	45	59	134	65	49	142	395	3
Salta.....	159	380	128	43	12	7	5	23	243
Tucumán.....	69	101	33	62	81	212	14	15	413
Santiago del Estero..	180	72	93	60	246	15	10	9	314
Catamarca.....	150	141	161	60	70	77	81	27	233
La Rioja.....	23	31	90	132	352	154	54	12	182
San Juan.....	65	28	23	94	530	32	16	25	187
Córdoba.....	169	271	83	156	212	45	19	28	17
Mendoza.....	73	77	140	162	191	56	35	21	645
San Luis.....	117	74	175	130	39	26	37	100	302
Chos Malal.....	143	14	28	113	43	70	228	165	192
Rawson (Chubut).....	72	69	78	82	52	132	258	123	132
Ushuaia (T. del Fuego)	122	29	75	25	21	147	313	66	224

The most windy region of the Republic is, undoubtedly, Staten Island, where the mean velocity reaches 26 kilometers per hour. The coast and table-lands of the territories of Santa Cruz and Chubut are swept by the prevailing winds from the south-west its mean velocity being from 14 to 17 kilometers per hour.

In the south of the province of Buenos Aires the velocity is about 11 kilometers whilst in the Federal Capital it falls to 8 kilometers. The average of the observations in the littoral districts to the north of the province of Buenos Aires show a mean of 7 kilometers. In the mediterranean region the velocity is well shown by the Córdoba records which give a mean of 11 kilometers per hour.

The region of greatest calm is found on the eastern slopes of the Aconquija range where the normal wind may be represented by the observations made in Tucuman, which give a daily mean velocity of 54 kilometers.

In general, the winds are strongest in spring, the period of high

winds being earlier in the pampa and northern sections of the riverine region than in the province of Buenos Aires, thus in the northern portion of the littoral, the period of light winds commences earlier than in the southern section, the lowest velocity in Formosa being from February to May; in Corrientes from February to April; in Rosario from April to May; in Buenos Aires and Córdoba from May to June.

Agriculture.

The lands of Argentina, in their actual state and from the point of view of the development of their riches, may be divided in the following proportions:

104,300,000 hectares of arable land fit for immediate cultivation.

100,000,000 hectares which, for the present, can only be utilized for stock-breeding, and 90,820,000 hectares, comprising, partly, woods and mountains with their abundance of wealth in form of lumber and minerals and, further, the portion occupied by rivers, lakes, salt-pans, arid regions, towns, etc.

Of the 104,300,000 hectares of arable land, only some ten millions of hectares are actually under cultivation.

The density of the principal crops is shown in the diagrams herewith (A. B. C.), and the figures of the following tables will give an idea of the position and importance of the various products of the farms of

COMPARATIVE STATISTICS — YEARS 1895, 1902 - 3.

Provinces	Area Hectares	Population		Railways		Area under cultivation		Area under principal crops, in hectares						
		National Census 1895	31st December 1902	Year 1895	Year 1903	All crops 1895 Hectares	All crops 1903 Hectares	Wheat		Linsseed		Maize		
								National Census 1895	Agricultural Statistics 1903	National Census 1895	Agricultural Statistics 1903	National Census 1895	Agricultural Statistics 1903	
Federal District...	18,300	663,854	885,490	76.8	78.9	2,733	3,500	—	—	—	—	—	—	—
Buenos Aires.....	30,512,100	921,168	1,208,937	4,522.8	5,862.5	1,395,129	3,164,310	367,446	1,315,431	64,756	315,073	669,607	852,975	—
Santa Fé.....	13,190,600	397,188	576,385	3,301.8	3,511.9	1,684,937	2,937,820	1,030,868	1,257,628	266,606	728,219	185,898	548,970	—
Entre Ríos.....	7,457,100	292,019	354,596	717.8	853.9	430,596	488,628	292,108	259,680	19,665	90,144	72,721	86,560	—
Córdoba.....	16,103,600	351,223	436,859	1,958.7	2,451.8	660,125	1,536,926	293,700	766,362	35,577	170,794	95,217	116,662	—
Corrientes.....	8,440,200	239,618	288,426	406.2	727.3	83,706	77,263	802	700	186	150	53,982	39,170	—
San Luis.....	7,392,300	81,450	93,976	332.8	343.7	35,885	59,348	2,319	2,574	2	10	15,029	13,210	—
S. del Estero.....	10,301,600	161,502	184,194	1,065.6	1,065.6	52,912	46,816	11,731	10,100	11	420	31,825	20,055	—
Mendoza.....	14,637,800	116,136	152,720	372.7	627.3	147,095	200,390	5,358	9,668	12	—	5,688	8,841	—
San Juan.....	8,734,500	84,251	97,803	83.6	83.6	85,716	145,238	10,728	8,400	27	—	6,716	5,137	—
La Rioja.....	8,949,800	69,502	79,442	153.0	352.0	29,028	43,653	4,958	4,353	19	29	12,278	17,175	—
Catamarca.....	12,313,800	90,161	100,613	362.1	362.3	30,599	33,469	5,552	4,200	56	—	9,532	6,949	—
Tucumán.....	2,312,400	215,742	251,857	574.4	612.0	98,175	93,796	1,276	3,000	19	—	30,259	24,090	—
Salta.....	16,109,900	118,015	132,613	257.5	299.6	81,868	76,500	13,760	18,000	5	—	36,537	21,200	—
Jujuy.....	4,916,200	49,713	54,287	50.5	71.7	13,903	21,105	2,191	3,497	9	—	5,248	7,674	—
Territories														
Misiones.....	2,922,900	33,163	36,286	—	—	26,348	52,155	59	—	16	—	6,246	10,493	—
Formosa.....	10,725,800	4,829	5,844	—	—	3,265	2,926	39	—	—	—	276	319	—
Chaco.....	13,663,500	10,422	12,958	—	20.0	8,567	10,989	10	23	50	57	4,464	4,369	—
Pampa Central.....	14,590,700	25,914	48,391	161.5	509.4	10,334	125,034	370	29,000	—	2,300	2,765	17,000	—
Neuquén.....	10,970,300	14,517	16,874	—	5.6	3,583	1,905	2,475	900	5	—	167	100	—
Río Negro.....	19,669,900	9,241	14,947	—	—	1,871	3,049	144	179	3	—	227	695	—
Chubut.....	24,203,900	3,748	4,911	70.1	70.1	5,598	3,210	4,659	1,648	—	—	—	—	—
Santa Cruz.....	28,275,000	1,058	1,631	—	—	20	78	—	—	—	—	—	—	—
Tierra del Fuego.....	2,149,900	477	1,166	—	—	21	22	—	—	—	—	—	—	—
Los Andes.....	6,490,000	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals.....	295,051,700	3,954,911	5,022,248	14,461.9	18,293.7	4,892,005	9,118,216	2,049,683	3,695,343	387,324	1,307,196	1,244,182	1,801,644	—

Year 1890-91....	11.482	1.531	26	Sundry crops, 234.209 hectares.
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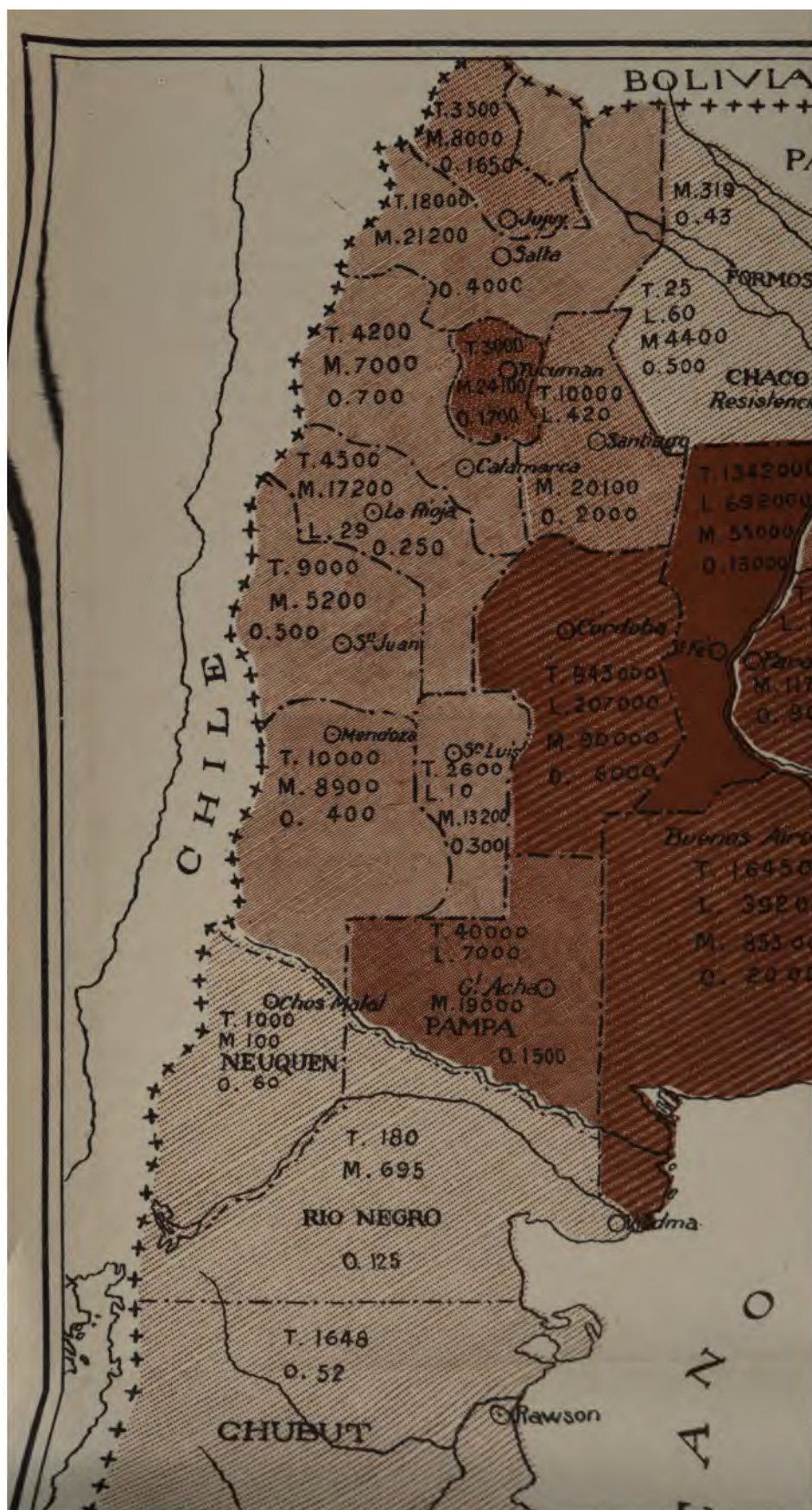
RÉSUMÉ :

1890-91

1902-03

Area under cultivation, as detailed above

	2 998 048 hectares.
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THE CEREAL REGION.

It will be seen by the figures of these tables that the production of the various cereals and linseed occupies 75 per cent of the total area under cultivation, and that it is concentrated in the region comprised by the provinces of Buenos Aires, Santa Fé, Córdoba, Entré Rios and part of the Pampa Central.

The principal circumstances producing this state of matters are:

1st The climatic conditions.

2nd The proximity of the ports of shipment.

In this region the mean annual temperature is 17° Centigrade. Even on the coldest days in the winter it is very seldom that the thermometer falls to freezing point, and snow is almost unknown. Under such circumstances the condition of the farmer is extremely favourable and living very cheap, in view of the fact that the cost of settling is not great, and that no time need be lost nor money spent in procuring and preserving the provisions that the severe winters render indispensable in other less favored countries.

The proximity of the ports of shipment is another of the causes of the concentration alluded to, because, seeing that the population of the country is relatively insignificant compared with its enormous agricultural production, the greater part of the crops must, necessarily, be exported, and this being the case the cost of transport becomes an important factor in the determination of the selling value, which is ruled by the quotations of the foreign markets of said produce. These circumstances limit, for the present, the growing of cereals to a remunerative region which is far from comprising the geographical area of these crops, it being universally known that a part of the lands of the Rio Negro, of the Neuquén, of Chubut, of the Andine and Northern provinces furnish the most favorable conditions for the cultivation of cereals.

CONDITIONS OF AGRICULTURAL PRODUCTION AND ITS OPPORTUNITIES.

The preceding table shows that in the short period of ten years the area under cultivation has increased by 6,118,568 hectares or say 204 per cent.

The greatest increase is seen in the production of wheat, maize and linseed :

	1891 Hectares	1900 Hectares	Increase per cent
Wheat	1,202,228	3,695,343	207
Maize.	825,495	1,801,644	118
Linseed	58,023	1,307,196	2,153

The growing of wheat, maize and linseed is carried out under any of the three following conditions:

- a) By the owner of the farm and his family, with or without other help.
- b) On rented land, paying rent in cash or handing over a part of the crop as equivalent of same.
- c) In partnership with the land-owner, the farmer receiving 50, 40 or 30 per cent of the crop.

The area occupied by the wheat and linseed harvested in the season 1901—2 amounted to 4,079,000 hectares.

Statistics of the harvest show that out of 37,434 farms, 13,150 were tilled by the owners of the land, 18,819 by farmers paying rent, and 5,46 by parties on shares of from a third to a half of produce.

The necessary capital required by a family for the cultivation of farm of 100, 50 or 25 hectares under wheat, maize and linseed would be more or less, in gold dollars, on land near a port, as follows:

SUNDRIES FORMING CAPITAL	Farm of 100 hect.		Farm of 50 hect.		Farm of 25 hect.	
	80 cultivated 20 pasture		40 cultivated 10 pasture		20 cultivated 5 pasture	
	number	\$ gold	number	\$ gold	number	\$ gold
Land at \$ 17.50	—	1750	—	875	—	438
Houses, fences, pens, wells..	—	400	—	280	—	160
Bullocks at \$ 16.....	13	208	9	144	4	64
Horses » » 12.....	3	36	2	24	1	12
Ploughs » » 12.....	3	36	2	24	1	12
Harrows » » 13.....	1	13	1	13	1	13
Carts » » 90.....	1	90	1	90	1	90
Binder	—	200	—	200	—	200
Sundries	—	67	—	50	—	41
Food.....	—	300	—	200	—	150
		3100		1900		1180

In the case of a rented farm, the value of the land, dwelling, fences and pens would have to be deducted; nor is it necessary to consider the amount of rent as forming part of the capital (seeing that such payments are made after the harvest), so that the capital, in this case, would be \$ 950 for a farm of 100 hectares, \$ 745 for one of 50 and \$ 582 for one of 25 hectares. The rent of good arable land may be taken at from \$ 1.50 to \$ 5 per hectare per annum, according to location of farm as regards proximity to navigable rivers, railway and ports.

When a farmer works on shares with the owner of the land, he

receives from him whatever machinery and implements that may be required, working animals and seed, and should sow the crops personally or with assistance of his family. After the crop has been sold, the cost of production of same, threshing and hauling, is deducted and profit divided between the landlord and the farmer in the proportion previously agreed upon.

A farmer and his family can work any of these three sizes of farm and obtain in ordinary years, if the land has been well tilled, a yield of 1,000 kilos of wheat, 2,500 kilos of maize or 900 kilos of linseed per hectare.

The net proceeds depend on the cost of production and the yield of each crop. These two factors vary indefinitely when applied to cultivation on the extensive scale in which it is carried out in this country, where, adjoining lands under tillage, which might far better be left fallow, there are hundreds of thousands of hectares of cheap virgin soil, in which it is sufficient to sow grain, after a very superficial working, in order to obtain a splendid yield. Under such favorable conditions, and taking advantage of agricultural machinery that enables us to cultivate large areas with only a few hands, there is always a probability of a good return for the farmer, and it is on this account that cultivation has increased in such an extraordinary manner during the last few years; some times on virgin land subdivided and sold by the owner on very easy terms, in other cases leased for four or five years at a fair rent payable at the end of the year or again at times for a proportion of the crop.

To form an estimate of the results that may be obtained it is necessary to consider that, though there are lands that give a poor yield, and disastrous harvests even in the best of soil, it is a well known fact that a yield of 1,500 to 2,000 kilos of wheat, 3,500 to 4,000 of maize and 900 to 1,200 of linseed per hectare is not exceptional, in lands that do not require either irrigation nor fertilizers.

BARLEY AND OATS. — Can be grown with good results in the same districts as wheat, and also in others where the soil is not so fertile, large yields and profits being obtained, which differ but slightly from those received from wheat.

RICE. — The area under rice may be estimated in 3,533 hectares. According to returns received by the Parliamentary Agricultural Investigation the yield varies from 2,500 to 5,000 kilos per hectare, and it is said that in the province of Tucuman alone there are 100,000 hectares of land suitable for the growing of rice.

POTATOES AND ROOT CROPS. — The growing of potatoes is carried out on yearly increasing areas of land, the most suitable districts being a large portion of the province of Buenos Aires and the South of Santa Fé, where a large business is done in this article which is exported to other localities. Potatoes can be produced throughout most of the country and especially in the central and southern districts. It is estimated that an hectare of potatoes will yield 15,000 kilos, giving a profit of more than \$ 100 currency to the farmer.

Sweet Potatoes grow exceedingly well, from the province of Buenos Aires northwards. *Beets* and *Jerusalem Artichokes* in all parts of the country. In the province of Corrientes and the territories of Misiones, Chaco and Formosa, **MANDIOC** is grown with good results, the root being prepared for consumption in the same manner as the potato or else reduced to a coarse powder (tapioca) with which a kind of porridge is made.

TEXTILES — COTTON, — The cultivation of cotton tends to increase in the territories of the Chaco, Formosa and Misiones and also in the province of Corrientes. The northern regions of the Republic are admirably suited for this crop which, to all appearance, has a great future before it.

The figures given in the last of the preceding agricultural table show that 1,112 hectares of land were under cotton. These figures, however, are taken from the returns obtained for the year 1902—3, and it is not unlikely, seeing the splendid results that this crop has given in the lands of the Chaco and Misiones, so exceptionally suitable for it, and the actual state of the article in the world's market, which have shown the importance that the cultivation of cotton must certainly attain in the Argentine Republic, that the estimate of 3,500 hectares as the area actually occupied by this crop will be found to be under the mark.

There are also indigenous textile plants, such as the *Chaguar*, the *Caraguatá* and the *Palma Caranday*, covering, in some regions, immense areas which furnish valuable fibre. Their working will give rise to a paying industry whose future is intimately bound up with the increase of population and improvements in the means of transport.

OLEAGINOUS PLANTS. — *Pea-nuts* and *Castor oil*. These plants are specially cultivated in the North of the province of Santa Fé, East of Entre Rios, in Corrientes and in Misiones, Chaco and Formosa, giving satisfactory results. Encouraging trials have also been made in the province of Córdoba and in the West of Buenos Aires.

The demand for these products increases year by year and insures an easy and remunerative sale.

Amongst the oleaginous plants, linseed, which we have mentioned before, is of the largest production.



[REDACTED]

[REDACTED]

[REDACTED]

FORAGE PLANTS.—*Alfalfa*. The cultivation of forage plants and especially of alfalfa increases rapidly, giving rise to the employment of a great number of hands for the preparation of the soil, sowing and harvesting. Notwithstanding, that the area under alfalfa has risen in a few years to 1,7300,000 hectares, it may be said that we are only now at the beginning of the transformation, so urgently required, of the natural pastures, which will continue with greater activity from year to year, materially aided as time goes on by the improvements in our live-stock that will render it still more necessary.

SUGAR-CANE. — Sugar-cane is more particularly a crop grown in Tucuman, although on a smaller scale it is also cultivated in the neighboring provinces of Santiago, Salta and Jujuy. Latterly it has been grown with good results in the Chaco, Formosa and Misiones.

It is estimated that the cost of planting one hectare of sugar-cane is about \$ 100, and that it will remain in a condition of remunerative production for fifteen years or more. The amount of cane furnished by one hectare varies between 25 and 35 thousand kilos, occasionally rising to 46,000 kilos.

PRODUCTION OF SUGAR

Year	Production tons	Export tons
1899	92,855	26,701
1900	115,934	15,270
1901	165,341	49,413
1902	126,440	41,694
1903	140,000 (estimate)	30,340

FRUIT. — All classes of fruit flourish in the country, from the banana, the pine-apple and «chirimoya» (a species of custard-apple) to the apple and medlar.

The *peach* is grown extensively in the provinces of Buenos Aires and Córdoba, *oranges* of various kinds in the provinces of Corrientes, Tucumán, Entre Ríso, Rioja, San Juan, Jujuy and in the territories of Misiones, Chaco, and Formosa. *Lemons* are found in all the above districts and also of most excellent class in the islands of the Delta of the Paraná, near Buenos Aires.

The cultivation of fruit is only just beginning to be carried out in a reasonable maner. The disposal of the produce, favored by the rapidity of transport which furnishes the means of exporting an important proportion of it to the European market under very favorable conditions, leaves no doubt of a brilliant future of this branch of farming, which finds in the soil and in the climate of many regions of the country the most excellent conditions for its development.

TOBACCO. — This is a crop more especially suited to the province of Corrientes, Tucumán, Salta and Jujuy, and to the territories of the Chaco, Formosa and Misiones.

The area under this crop amounts to 9,833 hectares in the proportions shown in the preceding agricultural tables.

The average yield of tobacco is 1,200 kilos per hectare.

VINES. — The region of vineyards comprises the provinces of Mendoza, San Juan, La Rioja, Catamarca, Salta, San Luis, Córdoba and Entre Ríos.

The area laid down in vines in 1892 amounted to 30,000 hectares, to-day there are 51,625 hectares distributed in the proportion shown in the preceding agricultural tables.

Vines in full bearing yield from 12,000 to 14,000 kilos per hectare; the estimated average of wine per hectare is about 60 hectoliters.

FORESTS AND TIMBER. — It is estimated that the extent of the forests suitable for lumbering amounts to 385,000 square kilometers. These forests contain an abundance of excellent timber such as quebracho, jacarandá, lapacho, palo-rosa, palo-santo, palma colorada, tipa, cedro, nogal, etc.

The export of woodland products during the year 1903 was valued in 3,472,708 dollars gold, amongst which appear:

Railway sleepers valued at \$	41,511
Extract of Quebracho	\$ 1,204,049
Quebracho logs	\$ 2,002,010



Lake Nahuel Huapi, Neuquen Territory.

The quantity of lumber carried by the railways in the year 1901 is shown in the following table:

LUMBER

FIGURES TENDING TO SHOW THE OUTPUT OF ARGENTINE FORESTS

Amount, in metrical tons, of timber and fire-wood transported (1)

I. — By rail in 1901

IN THE PROVINCE OR TERRITORY OF	FIRE-WOOD — (tons)	TIMBER — (tons)
Buenos Aires.....	49.000	38.714
Santa Fé.....	44.988	316.000
Entre Ríos.....	42.333	6.037
Corrientes.....	2.327	21.906
Córdoba.....	238.412	61.561
Santiago del Estero.....	276.977	172.094
San Luis.....	11.216	17.054
Tucumán.....	77.244	42.330
Mendoza.....	24.674	7.133
San Juan.....	2.405	41
Catamarca.....	24.411	9.786
Rioja.....	600	73
Salta.....	12.827	7.122
Jujuy.....	6.510	1.773
Chaco.....	112	39.826
Pampa.....	8.315	2.090
Totals...	822.351	743.540

II. — By water in 1900

FROM THE PROVINCE OR TERRITORY OF	FIRE-WOOD — (tons)	TIMBER — (tons)
Buenos Aires.....	148	99.800
Santa Fé.....	152	253.633
Entre Ríos.....	53.370	10.336
Corrientes.....	6.561	15.047
Chaco.....	6.060	17.214
Misiones.....	40	925
Totals...	66.331	396.955

Fire-wood used by the railways: 350.074 tons.

(1) In these figures are included some 90,000 tons of foreign timber.



Rural scene — Province of Buenos Aires

Animal Industry ⁽¹⁾

No country in the world possesses so vast an area of fertile soil, producing the very best classes of forage plants, that can compare with that of Argentina, where the mild climate admits of animals being born, reared and fattened absolutely in *the open*, without the necessity of stabling or artificially sheltering, whilst feeding exclusively on the natural pasture. The province of Buenos Aires, Entre Rios, half of Santa Fé and the South of Córdoba, can maintain, on an average, from 3 to 12 sheep or from a half to two cows per hectare, and the territories of the Pampa, Santa Cruz, Rio Negro, Neuquén and Chubut from 1 to 3 sheep per hectare.

Buenos Aires, Santa Fé, Entre Rios, Córdoba, San Luis, Pampa and Neuquén are admirably adapted for raising cattle, horses, sheep and hogs; Rio Negro, Chubut and Santa Cruz more particularly for breeding sheep; Corrientes, Chaco and Formosa, and the northern part of Santa Fé, Entre Rios and Córdoba especially for cattle. In the provinces of Mendoza, San Juan, Salta and Jujuy the stock is bred and fattened on

(1) From the report of Mr. Ronald Tidblom, Chief of the Division of Animal Industry,

irrigated alfalfa fields capable of carrying from two to six breeding cows and of fattening from two to three steers per hectare.

In the coarse grass districts of Buenos Aires, Santa Fe, Córdoba, San Luis and Pampa alfalfa and other fine grasses are sown on an extensive scale at a small cost owing to the forage plant seeds being sown at the same time as the wheat, oats, maize or flax.

Argentina's capital of live stock; its actual number per square kilometer (247¹⁰ acres) and its possible carrying capacity per kilometer, are estimated as follows:

Species	NUMBER		Head per sq. kilometer	
	Census 1888	Estimate 1901	Actual number	Possible number
Cattle.....	21,961,657	30,000,000	10	40
Horses.....	4,234,032	5,600,000	2	20
Asses & mules	417,494	500,000	0.26	10
Sheep.....	66,706,099	120,000,000	40	250
Pigs.....	393,758	800,000	0.30	10
Goats.....	1,894,386	3,100,000	1	15

Two currents of importation combined to form, during the 16th and 17th centuries, the foundation of the immense herds of cattle, sheep, horses and goats which constitute Argentina's capital of live stock: one came direct from Spain and settled on the margin of the Rio de la Plata; the other had its source in Perú and occupied the provinces of the interior. The cattle, horses and sheep imported into Argentina and Perú came principally from the south of Spain; the two former being of the Andalusian type and the latter of the breed called *churra*, which was characterized by its long legs, long straight and uncurled wool and small bones.

The importation of Merino sheep, Shorthorn and Hereford bulls, and heavy draught and thoroughbred horses was initiated at the beginning of the 19th century and gradually increased until 1870, when the importation of stud stock was started on a vast scale. So large a number of Merino (Spanish, French and German) Leicesters, Lincoln, Romney Marsh, Southdown, Hampshiredown, Shropshiredown, and Oxford down sheep; of Hereford, Shorthorn, Aberdeen Angus, Holstein, Dutch, Flemish, Swiss and other cattle; and Arab, Thoroughbred, Shire, Clydesdale, Percheron, Flemish, Suffolk Punch, Cleveland, Hackney, Trakehnen, Hambletonian and other breeds of horses have been imported that all the original wild stock has been so much crossed and in such a manner modified, that its size, production of beef, mutton, wool, etc is

at present so far enhanced that the average sheep yielding $1\frac{1}{2}$ pounds of wool in 1870 now yields $5\frac{1}{3}$ pounds and the average four year steer yielding 350 pounds of beef in 1870 now yields 550 pounds.

The current prices of live stock at the *estancias* (not including or first class stock, prices of which depend largely on momentary fluctuations accorded to certain breeds, varieties and families) are, in gold dollars head, as follows :

Mobs of cattle, comprising breeding cows from 3 to 8 years; 2 year old heifers and steers and yearlings; sucking calves not counted				\$ 7	to \$	
Old cows 8 to 9 years for fattening				" 8	" "	
Fat steers over 600 kilogs., live weight				" 35	" "	
do. 550 to 600 kilogs. do.				" 25	" "	
do. 500 to 550 kilogs. do.				" 18	" "	
Steers for fattening				" 13	" "	
Draught bullocks				" 20	" "	
Mobs of sheep, yielding from $2\frac{1}{4}$ to $2\frac{1}{2}$ kgs. wool.				" 1	" "	2.50
Wethers, 18 to 36 months, over 65 kgs. live weight				" 4	" "	5
do. 18 to 36 months from 55 to 65 kgs. live weight				" 2.50	" "	4
Mares (Mobs of) ,				" 7	" "	15
Saddle and light draught colts, 3 to 4 years				" 12	" "	20
Heavy draught colts, 3 to 4 years				" 30	" "	90
Saddle horses				" 15	" "	40
Heavy draught horses				" 60	" "	120
Mules				" 20	" "	50
Asses				" 8	" "	15

The typical Argentine "estancia" ranch or stock farm is a tract of land varying in size from 2,000 to 700,000 acres — the average may be estimated at 10,000 acres — which may be divided into the 7 following types :

- 1st Devoted exclusively to breeding cattle, sheep and horses.
- 2nd Breeding cattle, sheep and horses and fattening cattle and sheep for market.
- 3rd Exclusively fattening cattle and sheep for market.
- 4th Breeding combined with agriculture.
- 5th Breeding and fattening combined with agriculture.
- 6th Breeding, fattening and dairying.
- 7th Dairying exclusively.

All "estancias" are organized and worked, more or less, on the same lines: the property is fenced in and divided by wire fences into parcels.

docks—varying in area, from 200 to 6,000 acres and having one, two or more wells and troughs for watering stock—when the property is not crossed by streams—a given number of which are used exclusively for breeding stock whilst those yielding the best pasture are reserved for fattening and the remainder for tillage or for dairy cattle. The head station or “estancia” house is generally located, more or less, in the centre of the property, is usually surrounded by an orchard, vegetable garden, flower garden and by plantations of timber and ornamental trees and comprises: the owner's and manager's houses; labourer's or “peon's” quarters; the barns for storing machinery, implements, hides, wool, grain, etc., the shearing shed; the stables or barns for pure bred breeding stock; the sheep dip; coach and harness houses, the poultry house, etc., etc. Cattle are kept in separate paddocks, according to sex and age and are worked and looked after from the central station; pure bred stud herds and flocks are reared in paddocks adjoining the central station; sheep are kept in flocks of from 1,200 to 2,000 head and are shepherded by men (who are paid a monthly wage or else receive 25, 30, 40 or 50 per cent of the produce of the flock) living with their families in detached houses, generally located just within the limits of the property or on the division lines of the paddocks. All breeding “estancias” keep cattle, sheep and horses—there being hardly any where one kind of stock is exclusively kept. Only sufficient sheep for home consumption and as small a number as possible of horses are kept at “estancias” where cattle fattening is the main object. When dairying forms part of the work of a breeding or fattening “estancia”, milch-cows are kept in herds of 150 to 250 by dairymen who have charge of the care and milking of each herd and get from 40 to 50 per cent of the profits obtained by the sale of milk or cream forwarded daily to creameries, butter factories, or to retail sellers of dairy products. When agriculture is combined with animal industry it is generally carried on by families who work paddocks of 125, 250, 500 or 750 acres of land; are supplied with the necessary implements, machinery and working animals and receive half the crop. Sometimes the “estanciero” only provides the land and working animals and receives 10, 15 or 20 per cent of the crop—paying the threshing expenses of his share.

Stock raising in Argentine is about the best paying business existing, owing to the low value of purchased or rented land and live-stock, and to the cheap system of extensive breeding on natural pasture. The profits obtained naturally depend on the capital invested, as, owing to the system of breeding the expenses do not follow an arithmetical proportion to the number of stock kept, but are relatively lower as the number of stock is greater; thus the cost of tending 1000 head of cattle

would be about equal to the expenses required for 500 and the cost tending 2,000 about only 15 or 20 per cent more than they would be 1,000. Consequently, in the case of persons settling with a small cap there is always a great advantage in association, as the joint expenses are this way less.

Pastoral farming is usually carried on in three different ways: *A* on purchased land; *B* on rented land; *C* associating with land and stock owners. *

The following table will give an idea of the stock, land, etc., can be worked with varying amounts of capital, taking fixed figures different regions and leaving out the richer camps of Buenos Aires, Entre Ríos and Santa Fé, where the net profits of a breeding and fatten "estancia" are estimated at from 12 to 15 per cent on purchased land and at from 20 to 25 per cent on rented land.

A) Santa Cruz, East of Neuquén, Río Negro or Chubut

On purchased land, capital being.....	\$ Gold 10.000		\$ Gold 25.000		\$ Gold 50.000	
Items forming capital	No.	\$ Gold	No.	\$ Gold	No.	\$ Gold
Land at \$ 2.50 per hectare.....	1400	3.500	3200	8.000	6800	17.000
Sheep at \$ 1.50 each.....	2800	4.200	6000	9.000	13000	19.500
Cattle at \$ 12 each.....	10	120	50	600	50	600
Horses at \$ 20 each.....	10	200	20	400	30	600
Houses, fencing, wells etc.....		1.980		7.000		12.300
		10.000		25.000		50.000

B) Center, North and South of Pampa, South of San Luis, Neuquén and Río Negro

Land at \$ 1.25 per hectare.....	1800	2.250	4000	5.000	8000	10.000
Cattle at \$ 8 each.....	700	5.600	1500	12.000	3300	26.400
Sheep at \$ 1 each.....	1000	1.000	1000	1.000	1000	1.000
Horses at \$ 15 each.....	10	150	20	300	30	450
Houses, fencing, wells, etc.....		1.000		6.700		12.150
		10.000		25.000		50.000

C) East, Southeast and Northeast of Pampa

Land at \$ 5 per hectare.....	1000	5.000	2000	10.000	4400	22.000
Cattle at \$ 8 each.....	350	2.800	850	6.800	1800	14.400
Sheep at \$ 1 each.....	1000	1.000	2000	2.000	4000	4.000
Horses at \$ 20 each.....	10	200	15	300	30	600
Houses, fencing, wells, etc.....		1.000		5.900		9.000
		10.000		25.000		50.000

* The activity in land sales since these tables were prepared has increased the above mentioned prices.

D) Extreme West, Southwest and Northwest of Buenos Aires, Southwest of Santa Fé, and South of Córdoba

On purchased land, capital being.....	\$ gold 10.000		\$ gold 25.000		\$ gold 50.000	
Items forming capital.	No.	\$	No.	\$	No.	\$
Land at \$ 10 per hectare	520	5.200	1400	14.000	2800	28.000
Cattle at \$ 8 each	350	2.800	700	5.600	1500	12.000
Sheep at \$ 1 each	1000	1.000	1500	1.500	2000	2.000
Horses at \$ 20 each	10	200	10	200	20	400
Houses, fencing, wells, etc.....	—	800	—	3.700	—	7.600
		10.000		25.000		50.000

Net proceeds in cases A, B, C, D, \$ 800 to 1,200; \$ 2,000 to 3,000; \$ 5,000 to 6,500.

E) Territories of Santa Cruz, East of Neuquén, Río Negro, or Chubut, La Pampa, Buenos Aires or Santa Fé

On rented land, capital being.....	\$ gold 10.000		\$ gold 25.000		\$ gold 50.000	
Items forming capital	No.	\$	No.	\$	No.	\$
Sheep at \$ 1.50 each.....	5800	8.700	14500	21.750	30000	45.000
Cattle at \$ 12 each	—	—	50	600	50	600
Horses at \$ 20 each	15	300	20	400	40	800
Houses, fencing, wells, etc.....	—	1.000	—	2.250	—	3.600
		10.000		25.000		50.000

Net proceeds \$ 1,700 to 2,000; \$ 2,000 to 3,000; \$ 10,000 to 12.000.

F) Center, North and South of Pampa, South of San Luis, Neuquén and Río Negro, extreme West and South of Buenos Aires, South of Santa Fé and Córdoba, East, Southeast and Northeast of the Pampa.

On purchased land, capital being.....	\$ gold 10.000		\$ gold 25.000		\$ gold 50.000	
Items forming capital	No.	\$	No.	\$	No.	\$
Cattle at \$ 8 each.....	950	7.600	2700	21.600	5600	44.800
Sheep at \$ 1 each	1000	1.000	1000	1.000	1500	1.500
Horses at \$ 15 each	20	300	20	300	40	600
Houses fencing, wells, etc.....	—	1.100	—	2.100	—	3.100
		10.000		25.000		50.000

Net proceeds \$ 1,500 to 1,800; \$ 2,700 to 4,800; \$ 8,000 to 10.000.

The following are about the prevailing conditions under which persons with small capital usually commence pastoral farming :the owner of the land provides the necessary land to carry a flock of 1,600 sheep and a house, pens, troughs, and 800 sheep; the shepherd buys a further 800 sheep and takes charge of the whole flock; whatever the flock yield is divided equally between the landowner and the shepherd, after deducting the shearing and dipping expenses, which are advanced by the landowner. Contracts of this nature are generally made for three years at the end of every year the proceeds of wool, wethers, sheep, and skins sold are divided; the increase being divided at the end of the contract, when the shepherd may either take his capital in sheep or renew the contract, if both parties are agreeable.

The necessary capital for this plan would be :

800 sheep	at \$ 1	\$ 800 gold
6 horses.	» 15 »	90 »
Furniture, utensils and general expenses »		250 »
		<hr/>
		\$ 1,140 gold

With this capital and with sheep shearing from 5 1/2 to 6 pounds of wool, the shepherd's part of the net annual profit may be estimated at from \$ 400 to 600 gold.

WOOL.— 75 per cent of the wool produced in Argentina is of white-faced, long wool sheep (Lincolns, Leicesters. etc.); 20 per cent of Merinos and 5 per cent of black-faced and *criollo* sheep.

The annual wool clip has constantly increased during the last fifty years: from a total of 8,000,000 kilograms clipped in the 1849 - 50 season it rose to 65,000,000 kilograms in 1869 - 70, to 119,000,000 kilograms in 1889 - 90 and to 239,000,000 kilograms in 1899 - 1900. This enormous increase is partly due to the great reproduction of sheep and partly to the improvement of stock, through methodical crossing and selection.

The Argentine wool clip is, at present, estimated at 25 per cent of the world's production, which is said to be 1,050,000,000 kilograms.

The average clip per sheep is $5\frac{1}{3}$ pounds.

The average yield per cent of Argentine wool when washed is :

Regions	Merino o/o	Lincoln o/o
Buenos Aires, North.....	34 to 40	48 to 60
id. West.....	32 - 42	50 - 58
id. Southwest.....	34 - 42	50 - 60
id. South.....	36 - 46	50 - 75
id. East.....	40 - 46	52 - 75
Río Negro.....	30 - 34	38 - 48
Pampa, Neuquén, Chubut, Santa Cruz	32 - 42	40 - 60
Santa Fé.....	30 - 42	40 - 58
Córdoba, San Luis, Santiago.....	32 - 42	40 - 65
Entre Ríos.....	39 - 46	50 - 85
Corrientes.....	35 - 46	43 - 67

MEAT FREEZING WORKS. — The first meat freezing plant was established in 1883 at Campana, B. A., by the «River Plate Fresh Meat Co.»; the second was erected in 1884, at Barracas, B. A., by the «Compañía Sansinena de Carnes Congeladas»; and the third was started by the «Las Palmas Produce Co.» at Zárate, B. A. Two more plants were erected in 1903 at Barracas B. A., and Cuatrerros, B. A., by the «La Blanca Co.» and by the «Compañía Sansinena de Carnes Congeladas». The enormous growth of this industry is made evident by the fact that the export was started in 1883 with 7,571 frozen sheep; rose to 1,992,304 sheep and 9,355 steers in 1896; was 3,423,285 sheep and 207,553 steers in 1902 and amounted to 3,427,783 sheep and 254,971 steers in 1903.

SALADEROS.—The first *saladero* or beef salting plant was established in the first quarter of the 19th century and since then this industry has so steadily increased that the 15 plants now existing have slaughtered during the last five years the following numbers of cattle: 1899: 315,400; 1900: 328,700; 1901: 403,000; 1902: 454,900; 1903: 269,100, for preparing *tasajo* (jerked salt beef) extract of beef and tinned meat.

DAIRYING. — Dairying has been enormously developed in the last few years by the erection of a large number of creameries in the rural districts, the products whereof are sent to Buenos Aires to be transformed into butter, condensed milk, etc., for home consumption and export.

The greater part of the dairy products are handled by the co-operative societies «Unión Argentina», «El Progreso» and «La Tandilera», and the balance by «La Martona» and «Granja Blanca» companies.

In order to form an idea of the development that this business is destined to attain, it is sufficient to say that in 1891 the amount of butter exported was only 1,320 kilogrammes, in 1894 it increased to 19,500 kilos, in 1902 it had risen to 4,125,092 kilos and in 1903 it was again increased to 5,330,000 kilos; further the country holds above ten million breeding cows, whose milk can be made into butter at a lower cost than it is possible to produce it in any other country in the world.

Wages of labourers in the rural districts

	\$ gold per day
Agricultural labourers, normal years with food and lodging..	0.50 to 0.70
Do, during the harvest months. do ...	1.— to 3.—
Do Railways government, ports & public works.	1.— to 2.50
Factory labourers	1.— to 2.—
Mechanics, blacksmiths, carpenters, etc.,	1.50 to 3.—
Stockmen with horses, including food and lodging.....	1.— to 1.30
	per month
Do do without horses do do	12.— to 22.—
Gardeners, coachmen, etc. with food and lodging.....	20.— to 40.—
Shearers, with food and lodging per 100 sheep.....	2.— to 3.50
Cattledrivers..... (per kilometre).	0.10 to 0.12
Excavators..... (per cubic metre).	0.10 to 0.20

VALUE OF AGRICULTURAL PRODUCTS. — The annual mean value of the principal agricultural and animal products from 1896 to 1903 has been, in dollars gold according to the «Dirección General de Estadística» as follows;

	1896	1897	1898	1899	1900	1901	1902	1903
Wool, per 1000 kilos.....	186.—	186.—	208.—	288.—	256.—	197.—	239.—	258.—
Dry ox hides per 1000 kilos.....	285.—	298.—	290.—	329.—	332.—	330.—	330.—	337.—
Salted ox hides »	173.—	153.—	188.—	190.—	199.—	189.70	180.20	185.40
Dry horse hides each.....	1.72	1.26	1.71	1.59	1.75	1.63	1.58	2.14
Salted horse hides »	2.83	3.01	3.26	3.43	3.20	2.75	2.99	3.16
Sheepskins per 1000 kilos.....	130.—	110.—	140.—	210.—	210.—	170.—	200.—	240.—
Goatskins »	461.—	509.—	589.—	374.—	637.—	692.—	715.—	647.—
Horns per 1000	46.98	41.11	46.25	49.71	67.23	56.62	49.81	53.67
Horsehair per 1000 kilos	373.—	449.—	415.—	453.—	502.—	399.—	399.—	495.—
Wheat »	27.10	36.40	33.90	22.30	26.70	29.20	28.60	25.80
Maize »	10.—	18.10	14.—	12.40	16.20	17.20	20.30	16.70
Linseed »	28.—	33.—	35.—	36.—	54.—	53.—	51.—	34.—
Flour »	37.—	59.—	50.—	34.—	32.—	37.—	40.—	43.—
Alfalfa »	7.82	8.79	11.10	10.98	12.70	9.84	10.22	10.96



Gold Washing in the Neuquen Territory

Mining.

Throughout the whole extent of the eastern slopes of the Andes, from the extreme South of the Republic, Tierra del Fuego, to the Bolivian frontier, the existence of numerous mining districts has been fully proved; and in the provinces of Mendoza, San Juan, La Rioja, Catamarca, Salta and Jujuy, as also in Tucumán, Córdoba and San Luis, there still remain traces of very ancient mining works.

From the time of the Spanish colonization, as well as during the period of Independence, and even in our time, many of the towns and villages situated in the mining districts of the abovementioned provinces depended and still depend almost exclusively for subsistence on the mineral products extracted from the easily worked surface cropping of the numerous veins of silver and copper, and on the gold found in the brooks, rivers and placers, all of which were worked and reduced by means and methods of the most primitive and rudimentary nature.

During the last few years various companies have been formed to carry on mining on a large scale in various districts, and those who have worked them steadily have obtained very good results, notwithstanding the difficulties of transport and scanty means of communication.

Most of the well known mining districts have been for some time

back favored by having near them branches of the principal railways of the country, and at the present moment cable lines are being constructed so as to furnish them with easy transport to these branches, which no doubt will induce greater activity in working and, as we already see, an increased movement and interest in mining matters.

In addition, outside of the mining districts already mentioned, for some years back new mining zones are constantly being discovered in places that have not as yet been thoroughly explored; but as happens in almost all countries, miners always try to crowd together in well known centers, not being able or not desiring to undertake prospecting trips, on their own account, to these distant districts.

THE PROVINCE OF MENDOZA has mines of copper, argentiferous galena, auriferous quartz, petroleum, coal, alabaster, slate, marble, etc.

SAN JUAN, auriferous quartz, silver, copper, antimony, coal, sulphur, amianthus.

LA RIOJA is well known as regards its rich mines of native silver, argentiferous antimonurets and arseniurets and other ores, and also for its copper, which contains a high percentage of silver and gold, and auriferous placers. In this province, previous to the fall in the value of silver, many mines of this metal were worked, there being in addition to the small miners two important establishments for the reduction of the ore.

The mines of argentiferous and auriferous copper are of no less importance and the ore is smelted in various works near the mines.

A cable line is now in course of construction for the purpose of connecting all the mining districts of the Cerro Famatina with the mining center of Chilecito or Villa Argentina which, in its turn, is connected with the ports of shipment by means of the railways. This has attracted a large amount of foreign capital to that mining region. But in this province, as in the others, a greater number of experienced miners is badly wanted.

THE PROVINCE OF CATAMARCA also, has a very important mining region, the Cerro de Capillitas, containing several mines of argentiferous and auriferous copper, which have been worked for more than 30 years back. This group of mines, very rich in ore, has been acquired lately by a foreign company, that is now thinking of constructing a cable line to transport the ore from the Cerro.

At present there are two large smelting works, "Pilciau" and "La Constancia", both of them located in the midst of an extensive forest of "algarrobo" trees, which will provide an abundance of fuel for many years to come.

In the neighbourhood of the district of Capillitas and in the Western region of the province, there are other mines and numerous outcrops of veins of copper, argentiferous galenas, bismuth, antimony and auriferous quartz. At other points auriferous placers and iron ore have been found.

THE PROVINCES OF SALTA AND JUJUY possess rich veins of auriferous quartz, argentiferous galena, copper, borate of lime, lignite and petroleum, whilst the rivers that flow amongst the mountains are renowned for the gold found in their beds. A strong company has been formed with foreign and local capital for working the placers scattered all over these provinces.

The prolongation of the Railway to Bolivia will no doubt foment the working of new mining districts in the country through which it will run.

In times gone by, silver mines were worked in the PROVINCE OF TUCUMÁN. Copper is also found there. It is almost certain that in the Aconquija range will be found a continuation of the rich veins of copper already known in the neighbouring province of Catamarca.

THE PROVINCES OF CÓRDOBA AND SAN LUIS, in addition to the well known auriferous deposits have also argentiferous galenas, copper,



Gold mine in the
Neuquén Territory

manganeses, wolfram, and the celebrated quarries of marble, green and other colored varieties of onyx.

In the territories of TIERRA DEL FUEGO AND SANTA CRUZ, and along the Atlantic coast, the sands, especially after great storms, contain an abundance of gold dust, a large number of men of all nationalities being em-

ployed in the washing, obtaining, usually, good and at times very high wages; there also some gold washings that are regularly worked. In both territories seams of lignite and large quantities of peat are found.

A large number of natural salt-deposits are worked in the territory of Santa Cruz, the produce being forwarded to Buenos Aires by the regular line of steamers.

In the territory of CHUBUT, gold dust is frequently found in the river of same name, into which flow numerous brooks whose sources are in the Andine regions. The presence of gold, up to within a hundred miles from the Cordillera, encouraged the colonists to send a prospecting expedition to the head waters, gold being found in fair sized grains in all the brooks near the Pre-Cordillera. Subsequent prospectors discovered gold placers giving good returns, but the want of perseverance and practical knowledge, as well as lack of capital, disheartened the first pioneers; there are still, however, a number of men washing on their own account with fair results. A strong company is working the salt deposits of the Valdéz peninsula, and another the quarries of laminar granite, known as the Atlas Quarry.

For many years back large quantities of gold have been obtained from the rich placers of the NEUQUÉN territory.

Numerous applications have been made for claims with the purpose of prospecting the placers and veins of auriferous quartz. Copper, argentiferous galena, coal and petroleum have also been discovered, many concessions for working them having been applied for.

In the territory of the Río NEGRO, there are large deposits of gypsum, lime and other building material.

In the PAMPA CENTRAL, recently conceded copper mines are being worked in the district of Lihuel Calel.

In the territory of MISIONES native copper, iron and manganese are found.

In the territory of the ANDES (Puna de Atacama), there are large deposits of borate of lime as well as gold placers and auriferous quartz.

In view of the vast extent of these territories, in which no properly conducted prospecting has been done, except on a very small scale, it is only to be expected that many years will elapse before even an approximate idea can be formed of the riches existing in them. Nevertheless, the data collected up to the present augurs a brilliant future for the development of mining in the Argentine Republic.

Its mining laws could not be more liberal, as the State is debarred from working the mines on its own account, and, on the contrary, must

concede them to all persons claiming mining rights, it being understood that they are of age and capable of managing their property.

The Mining Code is in force throughout the whole extent of the Republic.

To acquire mining property, all that is necessary is to present an application, in duplicate, asking for possession of same, and giving all necessary indications regarding discovery and exact location, accompanied by specimens of the ores existing there. The authorities at once set down at the foot of the application, as a record of priority, the date and exact time of presentation; the measurement and determination of limits having been concluded, the applicant is at once put in full possession of the mine, the government granting the definite title to the property.

The discoverer has a prior right over any other applicant or simple certifier of the existence of a mine. No taxes are imposed on mining properties, nor on the minerals extracted from them, and further, no duty is charged on ores or metals exported.

The sole obligation of the miner, enforced by the Code, is that the mine be worked by at least four men for not less than two hundred and thirty days in the year. Should these dispositions not be complied with, any person may apply for possession of the abandoned mine.

The topography of the mountains of the mining regions is exceedingly rugged, being traversed by immense gaps or canyons, from which the veins of ore may be worked by means of level galleries, without the necessity of employing powerful machinery for raising the ore or water.

The climate of the mountainous mining districts is the most healthy and genial that can be found in any part of the world.



City-hall. Buenos Aires.

Industries

The general conditions of the country are highly favorable for the development of industries connected with the manufacture of articles of common and regular consumption, of moderate price, and that do not require the employment of much capital nor the services of a great number of hands of exceptional ability.

The extensive territory of the Republic, with its diversity of climate and soil, insures the existence and production of every class of raw material, that any industry may require, in the mineral, vegetable and animal kingdoms.

The articles made are, in pattern, taste and class, almost entirely the same as those produced in Europe. The products circulate freely through-

out the Republic, rapid means of communication being available to the centers of consumption.

Official action is favorable towards the moderate development of all manufactures that employ the raw material produced in the country, especially those that use and give a value to the products of rural industry, protectionist laws having been sanctioned and temporary patents granted, with the object of promoting the establishment of new industries and the importation of capital.

The country possesses in various districts of its territory numerous waterfalls that may be utilized as motor power.

A number of carboniferous deposits have been discovered recently which as yet have not been worked.

The manufacturing industry was commenced about 1875, with small shops and works for tanning, producing food stuffs, ready made clothing of all classes, working up timber and metals, but it was only after 1890 that it began to develop on a large scale.

The following table shows the actual importance of the manufactures of Argentina.

RÉSUMÉ OF INDUSTRIAL ESTABLISHMENTS OF THE ARGENTINE REPUBLIC, SMALL WORKSHOPS INCLUDED

	Number of works	Nationality of owners		Number of hands	Capital in paper currency	Number of machines in use		
		Argentines	For eigners			Steam	Horse power	Various
Alimentary	4,377	598	3,779	29,209	72,434,905			
Clothing	6,317	757	5,566	36,304	52,014,307			
Building material	4,211	1,108	3,143	32,560	50,951,000			
Furniture, etc.	2,634	476	2,158	18,346	26,715,000			
Artistic fittings	1,016	190	826	3,130	9,971,046	2,758	35,500	33,200
Metallurgy	3,404	436	2,968	16,137	28,114,000			
Chemical products	421	73	348	5,731	15,217,310			
Printing of all descriptions	682	145	437	6,115	13,217,504			
Sundries	1,769	462	1,307	18,845	52,641,713			
	24,831	4,245	20,532	166,377	321,276,785	2,758	35,500	33,200

The following industries are included in the 25,000 shops and works existing throughout the Republic, some 11,000 works and shops being concentrated in the Federal Capital, amongst which are to be found the most important of the country;

Earthenware, basque-shoes, saw-mills, ship-yards, trunkmakers, brass workers, shirt makers, carpenters, card-board workers, stretcher-bed makers.

kers, embroidery and fashion shops, brush makers, lock makers, patent leather, fire-works, mattress, ready made clothing, corsets, tanners, distilleries, packers, stair builders, billiard table makers, aerated waters, scales, varnish, oil, bags of all classes, buttons, lime, foot-gear, beds, lead piping, carts, carriages, beer, chocolate, cigars, stoves, comfits, preserves, cravats, wreaths, belting, glassware, sausages, matches, playing cards, biscuits, liquers, mosaic, furniture, shot, perfumery, brick dust, chemical products, combs, chairs, hats, sundry woven stuffs, candles of various classes, vinegar, glass, macaroni, artificial flowers, foundries, engravers, glove makers, blacksmiths, brick makers, printing works, soap, laundries, marble workers, ice-makers, bakers, fur shops, silver workers, limekilns, electric and gas fittings, picture frames, chairs, hatters, tapestry, dyers, sail and awning makers, electric and gas works, paper, felt, acids, sticks, tobacco, blank books, safes, paints, cheese, sausage casings.

Food.—The factories occupied in the preparation of food of various classes, together make up the largest amount of capital employed in the workshops and industrial establishments of the country, with exception of flour-mills, wine-presses, sugar-mills, breweries and distilleries.

But these are not sufficient for the consumption of the country as in the year 1903 there was imported :

Animal food.....	\$ 1,519,336 gold
Vegetable food.....	» 10,223,745 »

The preparation of canned meats, cheese, hams, pork-sausages, dry and preserved fruit, pickles, desiccated and preserved vegetables and cereals, is of little importance, as it is not sufficient to supply the local consumption; but these industries are bound to develop largely owing to the enormous amount of raw material that the country produces. The preparation of fish, dry, in brine, and canned, is a business with good prospects, taking into consideration the great variety and abundance of fish in the principal rivers and on the extensive coast of the country.

Liquors.—Liquers and other liquids, exclusive of wine:

Imports in 1903.....	\$ 2,480,523
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The establishments for the preparation of liquers and other classes of drink are found throughout the country in all towns and cities of large population.

The consumption of beer increases considerably every year. There are three large breweries in Buenos Aires with a total capital of 2,090,000 dollars currency, which supplied for home consumption in 1903, no less than 15,000,000 liters of beer of excellent quality; in the interior the

brewing industry is represented by 29 works, with a capital of 600,000 dollars gold and 1,676,330 dollar currency. These breweries sent out 22,000,000 liters in 1903.

No restrictions or privileges oppose the production of any class of drink, well known or new, except those referring to food adulteration and trade marks.

CLOTHING AND HABERDASHERY.— Include the making of foot-gear, shirts, cravats, gloves, corsets, under-clothing in general, ready made articles, hats and bounets, umbrellas, sticks, woven goods, etc.

All the branches of industry have attained considerable development, there being many important establishments for boot making, shirts and other classes of wearing apparel of which the greater number are found in the Federal Capital.

WOVEN GOODS.— The manufacture of woven goods is quite a new business in this country. With exception of woollen blankets and cloth for the army, the manufacture of rugs, «ponchos», fine cloth, drawers, hose and vests, was begun some years back and the demand increases steadily.

No silks or mixtures of silk are made. The import of these articles amounted in 1903 to 2,095,560 dollars gold. Silk-worms can be reared successfully in the country, but the industry has not as yet been established although it has most encouraging prospects.

The manufacture of woollen goods has attained considerable development in hosiery, but cloth and felt factories are much needed.

The imports of woollen and mixed goods in 190 were valued at 5,711,896 dollars gold.

The manufacture of cotton stuffs and hosiery has attained to considerable development.

All the factories of this description are located in the Federal Capital.

The value of the imports of cotton stuffs and made-up goods in 1903 amounted to 20,845,657 dollars gold.

Other woven goods, linen, jute and other fibres, were imported in 1903 to the amount of 10,839,535 dollars gold, in which are included bags and bagging (\$ 6,244,215 gold), twine, cordage, etc.

Yarn making is now being commenced; generally speaking, the woollen-weavers spin the wool for their coarse stuffs, but import from Italy, Germany and France the yarns required for finer goods.

Cotton yarns for making hosiery goods were imported in 1903 for a value of \$ 1,373,612 gold.

Raw material for all classes of woven fabrics is produced of good quality in the country.

The wool spinning and weaving industries have a bright future before them, the country producing large quantities of wool of all classes;

the silk industry will not tarry long in being established in view of the excellent results obtained from the rearing of silk-worms.

There is one spinning mill that can produce 31,000 kilos of yarn daily, made from cotton grown in the territories of the Chaco and Misiones, the quality of which is equal to that of Egypt, Louisiana or Georgia, the seed having been procured from those districts; and two others of equal capacity are being fitted up.

No less than 1,000,000 tons of flax are wasted yearly, only the seed being accounted of value for export and, although this flax is not to be compared with that grown especially for manufacturing purposes, it is certain that it must have considerable commercial value and that its employment would give rise to handsome profits. Ramie, hemp, jute, esparto grass, several aloes and a great variety of indigenous fibre producing plants of great commercial value, are cultivated in most exceptional conditions in the greater part of the Republic and even grow wild in great abundance.

The total value of the imports of textile material and woven goods in 1903 amounted to \$ 39,492,648.

MANUFACTORIES OF BUILDING MATERIALS, ETC.—These comprise saw-mills, shipbuilding yards, limekilns, carpentry, turners, brick-makers, stone-masons, tile-makers, gypsum and earthenware workers.

With exception of the saw-mills, limekilns and mosaic tile works, all these industries are on a small scale scattered throughout the country. Most of the saw-mills work up only the timber imported from North America for floorings, inner doors, etc., but there are some who make use of the hard woods of the country "urunday" and "lapacho" for wheels and hubs, doorframes, rafters and fence droppers. Excellent results are to be expected from the establishment of saw-mills that would employ the great variety of Argentine woods for making furniture, packing cases and staves; one butter factory alone imported in 1903 from North America, 150,000 boxes for butter, and in the same manner they are imported for packing sugar, raisins and dry fruits; the local workers produce some 2,000,000 boxes, made from imported pine and from poplar and willow grown in the country; staves and empty casks are imported to a value of \$ 280,000 gold; pitch-pine, spruce and other building lumber was imported in 1903 to a value of \$ 6,800,000, and the total value of the lumber imported, which might be substituted to a large extent by timber grown in the country, amounts to more than 7,000,000 dollars gold per annum.

There are no cement works in the Republic, although the country can furnish excellent raw material for the purpose. In 1903 the consumption of hydraulic cement amounted to 68,000 tons, the value of same being \$ 814,237 gold.

In 1903 no less than 5,412,000 roofing and flooring tiles were imported in addition to 1,300,000 kilos of glazed and mosaic tiles. The works in the country only produce mosaic lime tiles and a small number of others of inferior quality.

FURNITURE, ETC.— This group comprises: furniture of all classes, carriages and carts, billiard-tables, mattress makers, gilding, decorations, mirrors, baskets, bags, musical instruments, harness and saddle makers, tapestry, awnings, sails, cooperage, chairs, carvers, iron-beds, straw, rush and rattan articles, portmanteaus, ropes, brushes and broom-makers.

The making of furniture is well developed but tends towards the production of cheap goods; most of the good furniture is imported but there are three makers of first class articles: in 1903 no less than 13,826 cases of furniture was imported.

The usual run of carriages and carts are made in the country but those "de luxe" are almost all imported.

The manufacture of chairs, begun some years ago, is flourishing; nevertheless large quantities of North American and Vienna styles are imported in pieces to be fitted together here.

The country produces all classes of timber suitable for the manufacture of flexible and rigid chairs.

The construction of billiard-tables, musical instruments in wood, trunks, baskets, iron-beds, etc., is well advanced and can compete favourably with the imported articles.

METALLURGY, ETC. — The industries included in this group consist of blacksmith shops, foundries, sheet-iron making, and mechanics shops, some of them of importance.

The working up of the metals found in the country for local consumption and export promises good results.

The industries that make use of metal only work imported material, and in general are devoted to the casting of pillars, cog-wheels, shafting and machine repairs, safes, scales, screws and bolts, wire nails, wire netting, brass-castings, type-casting, lead sheets and piping, etc.

The import of metallic goods amounted in 1903 to \$ 30,769,865 gold; the principal articles forming this sum being given in the chapter on Commerce.

CHEMICAL PRODUCTS. — The importation of the products comprised in this group, in 1903, was as follows:

Vegetable, mineral and volatile oils	\$ 4,110,658
Chemical and pharmaceutical substances	» 4,494,453
Paints and dyes	» 933,855
Total	<u>\$ 9,538,966 gold</u>

With the exception of matches, candles and soap, the manufacture of chemical products is still in the rudimentary stage, there being an ample field for enterprising men who may devote their energy to the working-up and transformation of the abundant raw material produced in the country suitable for such purposes.

Amongst the articles manufactured here, we have a few acids, varnishes, perfumes, vinegars, blacking, colors, dyes, lacs, glue, powder, prepared paints, etc.; but the respective works are of little importance owing to small capital and also that only articles of inferior quality are produced.

The industries of this group which may be pointed out as being suitable for establishing in this country are: tartaric acid, refinement of sulphur, sulphuric, acetic, boric and citric acid, lubricating oils, essences, ammoniacal products, stearine candles, carbonate and bicarbonate of soda, fine glue, gum, soap of Marseilles class, pulp for paper making, cellulose, pepsine, fine perfumery, photographic plates, powder, glycerine, soda, sulphate of copper, white phosphorus, indigo, aniline dyes, varnishes, inks for writing, printing and lithography, dry and prepared colors, blacking, medicinal and dyeing products made from roots, bark and flowers, extracts, tanning material and sheep-dips.

All these articles have a regular demand, some in large quantities and others in a lesser degree; all the necessary raw material is produced in the country.

Native sulphur is found in abundance, up to a grading of 92 per cent, in the province of San Juan; an infinite variety of woods for making acetic acid can be procured at small cost; borate of lime only requires a small capital for the manufacture of boric acid and borate of soda; crude tartar from the plentiful wine production of San Juan and Mendoza allows of a large and easy preparation of tartaric acid, and the great abundance of lemons, bitter oranges and many other fruits can be utilised for making citric acid.

For the manufacture of stearine, common and glycerine soaps, we have any amount of tallow, the export of which in 1903 was valued at \$ 4,755,579 gold; large quantities of other animal products can be procured at very low prices for making glue for local consumption and export.

Gums, of the gum-arabic class, are found scattered in great abundance in the forests of the Republic; and a large number of classes of wood, reeds, etc., can be made use of for the preparation of pulp for making paper and celluloid.

The flora of Argentina is extremely varied and rich in essences for perfumery; besides which 42 species of dye plants are found in abun-

dance, whose roots, stems, leaves and fruit, produce yellow, red, green, brown, rose, purple, lead, blue, orange and scarlet colors; in addition 349 species of medicinal plants furnish a large field for industrial utilisation.

The very best woods known for tanning purposes are found in the country, and, without taking into account the "quebracho" which grows almost exclusively in the Argentine forests, there are no less than 33 species exceedingly rich in tannin which can be used in the preparation of tanning material. To give an idea of the importance that the preparation of tannin extract will acquire later on in Argentina, it is enough to say that England, Germany, the United States and France together import annually tanning material valued at 60,000,000 francs.

PRINTING, ETC. — Book-binding, blank-books, printing, lithography, card-board boxes, engraving and photography are all fairly developed industries. There are four paper-mills, only one of which is of importance, and two paste-board works.

The value of the paper and card-board imported in 1903 amounted to \$ 2,975,391, divided as follows :

Paper, card-board and paste-board	\$ 1,773,572	gold
Articles of above material	» 1,201,819	»

The paper and paste-board works only make wrapping paper and a small amount of printing paper, and in addition thick common paste-boards.

There is still room for the following branches of this industry: fine card and Bristol-board, printing, writing, photographic and cigarette paper, sand-paper, blotting, tissue and wall-paper, *papier maché*, envelopes, mounts for photographs, pulp for making paper and celluloid and paper for cuffs and collars.

Of all these industries the most important, as regards local consumption and export, is the production of pulp for making paper and celluloid. The country produces in great abundance trees and plants recognised as the most suitable for this purpose, which is bound to become an article of large exportation, in view of the extraordinary development of the paper industry throughout the world and on account of the numerous and novel applications of this material and also through the clearing of the forests of Europe and North America.

SUNDRIES. — *Tobacco* : All classes of tobacco grow well in various regions of the country, Misiones, Chaco, Tucuman, Salta and Jujuy. There are important cigar and cigarette factories, the latter having attained an enormous consumption.

In 1902 there were 1,111 factories and shops, for the manufacture of

DISTILLERIES OF ALCOHOL. — The production of alcohol is very fully developed; without taking into account the distilleries connected with the sugar-mills that make sugar-cane alcohol, there are 131 well equipped establishments for distilling alcohol from grain and wine.

WINE. — In all the provinces of the Republic grapes of all well known classes grow exceedingly well.

In 1899, the demand for consumption required the importation of 768,000 hectoliters of wine, French, Italian and Spanish; from that time the importation has diminished considerably, having fallen to 370,000 hectoliters in 1903.

There is an ample margin of profit in this business for those who are well versed in the production of all classes of wine.

There are 949 wine presses now working, the production increasing annually by about 70,000 hectoliters, almost exclusively in common wine,



Marine workshops



Riachuelo Creek and Central Produce Market

Foreign Commerce

The conditions of the Argentine Republic are highly favourable for the development of trade with other countries, as its extensive maritime coast, its great and deep rivers and its lengthy railway lines, enable it to place its products in the ports of shipment to all parts of the world at a very reduced cost and with great facilities for their exportation.

The following table gives a summary of the foreign trade of Argentina from the year 1888, specifying the countries from which goods are received and those to which produce is shipped.

IMPORTS AND

	1888	1889	1890	1891	1892	1893	1894
	\$ gold	\$ gold	\$ gold	\$ gold	\$ gold	\$ gold	\$ gold
South Africa							
Imports.....	—	—	—	—	—	—	—
Exports.....	11.061	27.537	—	—	10.160	—	—
Germany							
Imports.....	13.310.094	15.477.754	12.301.472	6.206.572	10.676.513	11.030.573	10.68
Exports.....	13.309.546	17.120.472	11.566.441	11.621.898	16.635.103	10.376.477	11.54
West-Indies							
Imports.....	2.212	910	—	13.034	—	—	—
Exports.....	1.246.716	1.290.472	975.075	1.340.660	1.254.714	1.030.974	1.39
Belgium							
Imports.....	11.084.482	13.958.247	10.986.710	6.374.868	6.646.838	9.636.845	8.95
Exports.....	16.679.944	16.326.423	12.003.086	18.130.787	14.672.427	10.771.163	12.76
Bolivia							
Imports.....	53.359	63.313	85.509	149.485	54.839	68.557	7
Exports.....	247.365	328.203	296.952	463.764	506.393	384.598	38
Brazil							
Imports.....	2.377.734	2.607.017	3.354.566	1.497.434	2.107.188	2.117.377	1.98
Exports.....	2.460.451	7.522.835	8.442.563	10.513.207	10.462.538	12.033.960	13.86
Chili							
Imports.....	29.959	19.509	51.114	15.804	71.420	326.624	2
Exports.....	1.682.011	2.504.727	2.188.951	2.374.343	1.993.567	1.584.078	1.76
Spain							
Imports.....	3.913.811	4.565.470	4.302.284	1.567.984	2.179.259	3.164.731	1.70
Exports.....	3.313.864	3.332.115	2.063.817	1.295.535	2.412.485	2.590.486	2.38
United States							
Imports.....	9.909.895	16.801.750	9.301.541	3.445.904	7.376.583	9.619.327	10.14
Exports.....	6.665.520	7.726.691	6.066.958	4.214.502	4.831.454	3.416.740	5.28
France							
Imports.....	22.966.857	30.237.407	19.875.877	7.925.296	10.425.865	12.094.253	10.15
Exports.....	27.973.561	38.264.414	26.683.318	24.142.260	26.438.097	18.158.977	18.84
Italy							
Imports.....	7.764.023	10.188.189	8.663.027	4.205.841	8.412.941	9.318.945	8.87
Exports.....	2.742.960	3.930.134	3.194.802	3.324.103	4.343.066	3.374.929	3.06
Holland							
Imports.....	276.815	831.372	850.121	119.251	149.106	168.891	10
Exports.....	—	116.479	160.249	39.335	6.700	71.640	16
Paraguay							
Imports.....	1.762.411	1.377.543	1.724.050	1.483.914	1.987.887	1.157.644	1.71
Exports.....	384.373	855.292	336.566	463.459	334.762	374.674	21
Portugal							
Imports.....	59.670	72.567	110.182	15.522	24.007	49.107	4
Exports.....	136.271	189.581	456.701	17.119	114.373	1.064.117	7
United Kingdom							
Imports.....	44.044.851	56.820.169	57.816.510	28.312.410	35.835.492	32.523.270	33.18
Exports.....	17.061.411	14.931.394	19.299.095	16.798.212	19.720.513	18.506.349	20.41
Uruguay							
Imports.....	5.443.001	7.206.315	5.885.758	2.574.498	3.726.491	2.613.164	2.32
Exports.....	2.681.283	5.393.960	5.506.675	4.518.752	3.132.567	4.150.718	4.51
Other countries							
Imports.....	5.412.936	4.342.352	6.932.091	3.299.963	1.806.734	2.334.320	2.80
Exports.....	3.515.566	2.954.328	1.557.744	3.961.064	6.501.418	6.200.379	5.09
Total Imports	128.412.110	164.569.884	142.240.812	67.207.780	91.481.163	96.223.628	92.78
Exports	100.111.903	122.815.057	100.818.993	103.219.000	113.370.337	94.090.159	101.68

PORTS BY COUNTRIES

1895	1896	1897	1898	1899	1900	1901	1902	1903
\$ gold	\$ gold	\$ gold	\$ gold	\$ gold	\$ gold	\$ gold	\$ gold	\$ gold
8.010	465.326	573.447	518.118	953.365	3.240.270	2.891.259	4.491 8.285.387	62.573 9.170.910
11.162.549 13.323.324	13.895.065 13.332.785	11.114.102 14.047.135	12.571.116 20.286.338	12.979.937 29.433.663	16.635.613 20.070.133	16.724.549 21.479.882	13.229.275 22.939.881	17.009.322 26.812.873
86.233 1.616.602	23.119 252.600	52.558 296.817	27.643 162.397	44.098 265.939	19.639 438.251	43.679 366.183	106.781 470.991	373.181 164.933
7.441.356 15.417.711	8.453.200 12.062.348	8.046.254 8.934.829	9.444.981 13.949.751	9.410.479 24.478.370	8.430.880 17.980.885	8.688.657 13.457.731	5.484.233 13.760.219	5.448.872 20.143.012
72.639 591.868	55.405 320.208	50.260 352.520	57.208 408.813	78.385 332.129	122.422 578.646	138.732 541.049	122.015 600.368	125.458 450.597
4.095.665 8.096.105	5.152.621 9.841.460	4.761.505 8.685.187	5.012.115 7.916.301	4.806.116 7.041.668	3.741.877 6.185.507	4.386.047 9.702.488	4.583.645 8.368.742	5.350.976 8.545.127
41.635 3.067.421	15.697 2.171.214	248.902 1.977.398	82.772 1.354.494	142.309 659.924	124.214 870.003	110.076 568.173	213.189 684.113	200.473 1.170.778
2.575.125 1.311.999	3.007.207 1.166.400	3.245.646 1.271.149	3.315.470 387.998	3.197.882 1.765.391	3.691.998 2.699.391	3.912.536 2.131.713	3.166.902 2.025.428	3.574.591 2.035.555
6.686.999 8.947.165	11.210.475 6.401.365	10.101.714 8.321.611	11.129.065 5.874.295	15.466.846 7.667.523	13.438.529 6.882.763	15.533.639 9.296.454	13.305.513 10.037.576	16.684.954 8.126.346
9.116.870 20.337.169	12.028.514 23.654.976	11.019.576 22.999.019	10.596.725 29.981.056	10.979.690 41.446.747	10.897.866 19.007.960	9.959.541 28.637.121	9.243.071 29.587.457	12.708.238 34.294.945
10.363.129 3.518.087	11.394.910 3.897.063	10.643.038 3.964.616	13.695.241 5.246.054	13.780.072 4.926.612	14.924.498 4.304.154	14.736.103 4.318.950	12.265.003 4.215.756	14.702.193 4.338.554
103.931 92.050	110.381 581.686	80.055 33.653	109.881 331.232	143.056 1.481.526	173.833 3.906.082	573.419 1.753.931	622.359 2.834.288	790.966 4.546.958
1.824.312 100.160	1.222.025 159.387	1.457.327 159.094	1.757.439 144.108	1.371.649 177.974	1.860.948 161.613	1.767.644 216.053	1.469.510 212.212	1.059.839 173.904
56.405 138.497	84.728 19.487	71.588 19.562	74.984 11.597	98.003 72.184	78.049 369.504	68.849 7.704	89.794 113.473	213.249 101.093
39.524.270 14.694.783	44.729.966 14.388.761	36.392.057 12.984.690	39.012.600 19.205.928	43.671.421 21.721.591	38.682.753 23.890.686	36.460.808 29.920.759	36.995.460 35.084.066	44.826.749 35.600.922
736.110 3.290.574	568.560 2.784.661	505.170 2.586.214	470.901 3.683.275	506.967 3.481.348	520.449 2.302.599	679.236 3.710.663	744.694 3.673.633	760.677 4.188.532
1.209.210 25.516.265	211.718 25.302.289	199.296 13.962.258	70.759 24.367.703	173.761 39.011.577	141.501 41.711.965	175.234 38.716.989	1.393.321 36.593.137	7.314.289 61.119.485
95.096.438	112.163.591	98.288.948	107.428.900	116.850.671	113.485.069	113.959.749	103.039.256	131.206.600
120.067.790	116.802.016	101.169.299	133.829.458	184.917.531	154.600.412	167.716.102	179.486.727	220.984.524

The countries comprised under «Other countries» are those detailed below, the value of their trade with the Argentine Republic in 1903 being as follows.

IMPORTS. — Australia \$ 73,088; Austria-Hungary, \$ 775,402; Canada, \$ 912,830; Colombia, \$ 1,148; China, \$ 330,261; Denmark, \$ 6,173; Ecuador, \$ 11,390; Egypt, \$ 8,848; Greece, \$ 5,870; Guatemala, \$ 957; Haiti, \$ 985; Japan, \$ 65,826; Morocco, \$ 2,790; Mexico, \$ 33,958; Nicaragua, \$ 186; Peru, \$ 40; Spanish possessions, \$ 238; French possessions, \$ 254; Dutch possessions, \$ 14,904; British possessions, \$ 3,223,851; United States possessions, \$ 22,877; Portuguese possessions, \$ 127; Russia, \$ 180,876, San Salvador, \$ 2,688; Santo Domingo, \$ 65; Sweden and Norway, \$ 457,503; Switzerland, \$ 942,271; Turkey, \$ 29,116; Venezuela, \$ 3,916.

EXPORTS. — Australia, \$ 2,272,310; Austria-Hungary, \$ 88,960; Denmark, \$ 25,274; Mexico, \$ 2,149; French possessions, \$ 106,039; British possessions \$ 67,673; Russia, \$ 7,916.

We may also remark that in the exports to «Other countries», shipments «for orders» are included, especially cereals, the value of which, in the past year 1903, amounted to the large sum of \$ 48,387,852 gold.

The National Statistical Department does not give the quantities corresponding to imports and exports of the consumption during the voyages neither provisions and transhipment of merchandise.

Having given the figures relating to the foreign trade in its two great divisions, Imports, and Exports, the table that follows has been made up in order to show the movement in the former, with the headings under which all goods imported during the past ten years have been placed.



The new slaughter yards — Buenos Aires

The articles comprised under the previous headings are very numerous and include all the branches of modern industry.

We may mention those that are more notable as regards their consumption in the country, taking the figures of 1903, thus giving a exact idea of their importance:

PRINCIPAL IMPORTS IN 1903

		Quantity	Value
Cod-fish and Stock-fish	Tons	2,073	29
Hams	"	216	10
Canned fish, lobsters, oysters, etc.	"	2,362	57
Cheese	"	1,129	45
Olives	"	1,478	15
Saffron	Kilogs	8,088	16
Rice	Tons	26,035	2,08
Malt	"	7,341	36
Coffee	"	8,395	1,00
Tea	"	816	48
Verba (Paraguayan tea) from Brazil, dried	"	13,341	1,33
do (") do prepared	"	18,755	2,25
do (") from Paraguay dried	"	3,907	39
Confections and preserves of fruit	"	130	10
Meals or flours, excluding wheaten flour	"	569	10
Cigars, excluding Havannahs	Kilogs	453,567	56
Sheep-dips	Tons	6,602	1,98
Havannah tobacco, in leaf	Kilogs	236	35
Tobacco not Havannah in leaf	"	1,768	71
Champagne and other sparkling wines	Doz.	14,817	14
Vermouth	"	176,417	70
Ordinary wines, in wood	Hec'liter	370,485	3,78
Bitters of all classes, bottled	Doz.	162,642	65
Brandy, bottled	"	46,732	28
Gin, square bottles	"	39,325	11
Mineral waters	"	184,921	24
Ribbons, silk mixture	Kilogs	32,946	22
Sewing and embroidery silk	"	13,278	14
Silk Handkerchiefs	"	8,113	11
Silk stuffs, pure silk	"	54,332	78
do cotton mixture	"	95,706	41
Woollen yarn	"	277,695	24
Ready-made clothing	--	—	19

		Quantity	Value \$ gold
Felt hats	Doz.	6,825	136,500
Woollen stuffs, pure wool	Tons	1,105	2,807,591
do cotton mixture	»	1,137	1,785,483
Carpeting	»	201	231,250
Cotton yarn	»	3,925	1,373,612
Cotton bags	»	1,134	566,869
Cotton tape	»	102	137,804
Cotton bed-covers	»	201	214,145
Laces, insertions and netting	Kilogs	174,713	650,821
Common sewing cotton on reels	Doz.	2,877,439	531,054
Thick cotton thread	Kilogs	101,458	101,458
Sewing twine	»	609,046	182,714
Cotton hose	»	277,816	694,538
Cotton handkerchiefs	»	263,374	482,978
Cotton stuffs, white or colored	Tons	15,319	14,055,863
do unbleached	»	1,866	945,560
Jute bags	»	2,534	405,415
Jute bagging	»	41,608	6,241,215
Binder twine	»	5,554	1,110,958
Ropes and cordage generally	»	1,574	265,489
Canvas and duck for sails, awnings, etc.	»	824	376,669
Linen stuffs	Kilóg.	378,706	500,207
do mixed cotton	»	102,856	112,546
Elastic fabric, for foot-gear	»	67,296	142,418
Cloth and other stuffs, water-proof	»	400,660	201,098
Lubricating oils	Tons	9,173	887,879
Olive oil	»	6,841	1,365,241
Turpentine	»	903	117,331
Kerosene	Hec'liters	415,972	1,247,914
Crude naptha	Tons	2,018	201,751
Patent medicines	—	—	985,029
Pulp for paper-making	Tons	12,056	361,671
Perfumery	—	—	429,292
Rosin	Tons	8,964	268,904
Powder loose and in cartridges	»	311	152,102
Common Salt	Hec'liters	397,350	198,674
Soda Ash	Tons	3,637	109,113
Indigo and aniline dyes	Kilog.	104,449	104,449
Varnishes in general	»	209,828	165,804
Paint in powder or in lump	Tons	1,725	123,500
do prepared for use	»	2,262	301,645

		Quantity	Value \$ gold
Cedar	Cub. mts.	13,732	165,546
Cork	Tons	229	152,488
Staves and empty casks	—	—	278,057
Timber in the rough and partly worked	Cub. mts.	31,129	411,286
White Pine	»	59,452	1,170,331
Pitch Pine	»	180,027	2,880,459
Spruce	»	106,263	1,488,459
Carts and carriages	Number	3,825	117,695
Ships, launches, boats, etc. of all classes	—	28	183,445
Furniture in general	—	—	373,332
Pianos	Number	1,425	216,730
Wagons	»	293	358,982
Pasteboard	Tons	3,351	258,286
Printing-paper (newspapers)	»	3,950	296,220
Writing-paper	»	1,297	233,527
Cigarette-paper	»	237	185,353
Printing-paper (books)	»	1,723	310,115
Wall-paper	»	559	149,544
Envelopes of all classes	»	429	171,747
Leather or calf-skin	Kilogs	60,496	206,841
Kid-skin	»	35,152	164,092
Morocco leather, etc.	»	46,349	163,275
Steel bars and plates	Tons	1,080	108,033
Steel or Iron galvanized wire	»	34,342	2,226,039
Wire of other classes	»	15,903	817,621
Nails	»	1,634	176,659
Steel fish-plates	»	4,415	529,806
Hoop-iron	»	3,746	149,842
Iron, pig, bars and plates	»	55,776	2,177,417
do galvanized	»	33,943	2,715,474
Steel rails	»	64,808	2,592,305
Iron columns and girders	»	13,729	551,399
Screws, bolts and nuts	»	3,191	358,920
Iron droppers for wire fences	»	2,631	105,250
Ploughs	Number	73,900	1,446,316
Corn-shellors	»	812	111,018
Headers	»	3,342	378,960
Plough-shares	Tons	516	147,694
Reapers and binders	Number	3,761	402,904
do non-binders	»	9,374	562,826
Sowers	»	5,697	170,910

		Quantity	Value \$ gold
Threshers with engine	Number	214	483,625
do without do	»	220	223,090
Spades, picks and hoes	Tons	717	120,698
Fire-arms	—	—	103,727
Kitchen utensils etc	Tons	1,731	475,395
Iron chains	»	1,110	117,990
Boilers	Number	69	148,575
Galvanised iron piping	Tons	3,974	397,382
Other classes of piping	»	5,172	234,393
Knives forks. spoons, etc	—	—	248,276
Tools and implements, trades and household use	Tons	329	240,661
Locomotives	Number	57	714,155
Sewing machines	»	28,676	344,595
Machinery, various	Tons	9,409	1,576,616
Railway material	—	—	1,785,550
Wind-mills	Tons	1,665	165,499
Duplicate parts for machinery	—	—	914,223
Wheels and axles	Tons	1,416	136,201
Wire and cable for electric conductors	»	1,642	783,636
Tin in ingots and bars	»	203	121,961
Tin-plate	»	4,951	401,737
Lead in ingots and bars	»	2,732	218,614
Galvanized iron, plain and corrugated	»	1,400	154,042
Jewelry of good quality excluding watches and precious stones	—	—	385,939
Copper and brass goods	Tons	821	586,931
Watches, excluding gold	Number	60,028	177,830
Clocks, wall, mantelpiece, etc.	»	104,211	99,760
Sand	Tons	268,614	214,706
Coal	»	1,079,076	7,490,530
Marble in blocks	Cub.met.	2,251	254,100
Precious stones and pearls, unset	Gram.	3,072	120,129
Hydraulic cement	Tons	67,853	814,237
Plain glass in panes	Sq. met.	591,711	748,789
Glass bottles and vials	Doz.	310,983	117,830
China and earthenware in general	—	—	390,619
Lamp tubes	Tons	821	108,000
Fans	Doz.	108,549	108,119
Buttons	Tons	147	190,664
Gutta-percha and caoutchou articles	—	—	207,856

		Quantity	Value \$ gold
Toys	—	—	206,919
Meat preserving plant	—	—	137,754
Tramway material	—	—	261,122
Combs	Kilogs	40,446	114,410
Rabbit fur		104,332	208,664
Seeds, excluding wheat and alfalfa	Tons	2,847	171,862
Druggists utensils and apparatus	—	—	236,932
Total			\$ 111,960,133
Other articles			19,246,467
Total imports			<u>\$ 131,206,600</u>



Bank of the Nación Argentina.



Port entrance

Exports.

The Exports from the Argentine Republic classified under the headings of the principal groups of production, have been during the decade 1894—1903, as follows:

EXPORTS, UNDER PRINCIPAL HEADS, DURING 1894-1903 VALUE IN GOLD DOLLARS

	1894	1895	1896	1897	1898
Live-stock products	64,562.091	74,629 876	70,534.040	74,044.525	87,381.625
Live-stock	5,683.707	9,052.772	8,635.122	7,208.133	10,133.868
Meat, hides, wool, etc.	54,836.094	60,352.509	56,950.133	62,828.342	72,450.544
Manufactured animal products	3,236.734	4,367.264	4,473.218	3,294.919	4,012.865
Offal and by-products	805.556	857.331	475.567	713.131	784.348
Agricultural products	34,039.591	41,448.012	43,132.585	23,336.369	42,692.922
Raw material	32,520.256	39,085.264	36,963.480	15,568.927	38,475.436
Manufactured products	1,180.828	1,960.399	5,275.439	6,851.264	3,260.692
By-products	338.507	402.349	893.666	916.118	956.794
Woodland products	1,511.145	2,161.414	1,268.663	1,918.241	2,283.061
Products of the chase	380.643	172.711	205.025	587.863	449.549
Mineral products	311.903	338 982	352 840	124.989	205.559
Other products and sundries	882.613	1,316 755	1,308.863	1,117.312	8.6.742
Totals	101,687.986	120,067 750	116 802 016	101,169.299	133,829.458

	1899	1900	1901	1902	1903
<i>Live-stock products</i>	115,546.906	71,253.886	90,646.411	104,539.139	109,181.342
Live-stock	9,027.996	5,942.130	3,084.755	5,617.696	6,661.176
Meat, hides, wool, etc.	102,409.004	61,084.550	81,782.456	89,141.828	93,224.203
Manufactured animal products	3,542.077	3,568.189	5,154.226	9,036.246	8,648.091
Offal and by-products	567.829	659.017	624.974	743.369	647.872
<i>Agricultural products</i>	65,155.995	77,426.356	71,596.099	68,171.332	105,251.309
Raw material	59,919.163	73,045.267	63,103.999	61,118.427	97,391.043
Manufactured products	4,118.804	2,952.449	6,704.101	4,994.247	5,639.451
By-products	1,118.028	1,428.640	1,787.999	2,058.658	2,220.815
<i>Woodland products</i>	2,208.916	3,508.915	2,821.496	3,649.208	3,472.708
<i>Products of the chase</i>	795.893	990.594	940.141	718.449	657.952
<i>Mineral products</i>	238.562	262.222	408.440	327.006	397.427
<i>Other products and sundries</i>	971.259	1,158.439	1,303.515	2,081.593	2,023.786
Totals	184,917.531	154,600.412	167,716.102	179,486.727	220,984.524

The great outlines of the Argentine Exports having been shown by the preceding figures, it is convenient to detail the principal products forming each of the groups mentioned, taking the quantities and values for the year 1903:

PRINCIPAL EXPORTS IN 1903

LIVE-STOCK		Quantity	Value \$ gold
Cattle	Number	181,860	4,437,420
Sheep	"	167,747	503,241
Horses	"	13,903	386,625
Asses	"	20,652	413,040
Mules	"	30,668	920,040
Horns, cattle	Tons	1,571	125,648
Beef, frozen	"	85,520	8,151,956
Mutton do	"	78,149	6,251,959
Horse hair	"	2,355	1,147,879
Goat-Skins	"	1,412	847,465
Kid-Skins	"	370	221,996
Sheep-skins, unwashed	"	41,931	10,132,065
Ox hides, Salted	"	28,769	5,360,748
do dry	"	23,242	7,787,819
Horse hides, Salted	"	2,233	453,237
do dry	"	1,302	424,616
Wool in the grease	"	192,989	50,424,168
Tongues, canned	"	473	141,951

LIVE-STOCK		Quantity	Value \$ gold
Jerked beef	Tons	12,991	1,542,018
Sundry meat, frozen	»	3,138	203,973
Gelatine	»	335	100,599
Sundry Meat, canned	»	8,742	374,154
Sheepskins, tanned	Doz	92,261	369,044
Extract of beef	Tons	347	693,174
Butter	»	5,330	2,132,056
Tallow and fat	»	36,561	4,755,579
Bones	»	31,500	294,754
Oats	»	26,245	514,267
Linseed	»	593,601	21,239,894
Maize	»	2,104,384	33,147,249
Hay	»	98,859	1,033,244
Wheat	»	1,681,327	41,323,099
Sugar	»	30,340	2,427,190
Flour, wheat	»	71,980	3,128,525
Bran	»	132,192	1,894,693
Shorts	»	12,351	123,508
Oil cake	»	9,067	181,341
Charcoal	Hec'liters	111,036	166,554
Quebracho extract	Tons	12,040	1,204,049
do logs	»	203,201	2,002,010
Crude Borax	»	4,577	228,853
Nutria Skins (M Coypus)	Kilóg	368,017	301,621
Ostrich feathers (Rhea)	»	57,440	121,098
Egret and other similar feathers	»	224	134,400
Total			\$ 217,768,819
Other produce			\$ 3,215,705
Total Exports			<u>\$ 220,984,524</u>

In order to show the exports of the principal products in the decade 1894—1903, various tables follow with a detail of quantities and values; at the same time it must be taken into consideration that, on account of the strike of stevedores and other hands in the port of Buenos Aires during the last month of 1903, the figures for that year are much reduced as far as statistics are concerned. The produce that could not be shipped in that month was exported in January and February of the present year 1904.

EXPORTS OF PRODUCTS OF STOCK-BREEDING

LIVE-STOCK

YEARS	Cattle		Sheep		Asses, horses and mules	
	No.	Value \$ gold	No.	Value \$ gold	No.	Value \$ gold
1894	220.490	4.540.160	122.218	448.678	36.211	588.064
1895	408.126	7.003.230	429.946	1.292.327	43.404	695.567
1896	382.539	6.543.550	512.016	1.536.056	37.556	451.663
1897	238.121	5.018.222	504.128	1.512.684	46.322	669.061
1898	359.296	7.690.450	577.813	1.733.963	32.099	700.430
1899	312.150	6.824.010	543.458	1.631.041	21.233	545.485
1900	150.550	3.678.150	198.102	594.675	56.400	1.668.705
1901	119.189	1.980.372	25.746	78.248	39.022	1.022.375
1902	118.303	2.848.445	122.501	368.656	85.159	2.392.335
1903	181.660	4.437.420	167.747	503.241	65.223	1.719.705

EXPORT OF LIVE-STOCK PRODUCTS

YEARS	Wool		Sheepskins		Salted ox and cow hides		Dry ox and cow hides	
	Tons	Value \$ gold	Tons	Value \$ gold	Tons	Value \$ gold	Tons	Value \$ gold
1894	161.907	28.948.933	36.756	4.915.384	29.621	3.553.198	36.578	7.045.877
1895	201.353	31.029.522	31.604	3.711.966	34.902	6.332.204	27.746	8.940.950
1896	187.619	33.516.049	36.918	4.061.055	29.308	4.598.515	21.840	6.600.005
1897	205.571	37.450.244	37.077	4.094.640	27.383	4.605.572	29.300	8.596.344
1898	221.286	45.534.603	42.245	6.194.267	29.367	5.171.440	23.174	6.887.596
1899	237.111	71.283.619	41.697	9.308.535	28.528	5.334.832	23.956	8.001.132
1900	101.113	27.991.561	37.593	7.472.988	26.423	5.285.819	24.866	8.159.542
1901	228.358	44.666.483	41.120	7.339.811	28.158	5.281.756	26.647	8.848.438
1902	197.936	45.810.749	41.405	8.487.078	35.343	6.384.955	26.558	8.822.302
1903	192.989	50.424.168	41.931	10.132.065	28.769	5.360.748	23.242	7.787.819

YEARS	Salted horse hides		Dry horse hides		Horse-hair	
	No.	Value \$ gold	No.	Value \$ gold	Tons	Value \$ gold
1894	315.997	758.393	191.487	287.769	2.622	996.468
1895	446.752	1.381.719	138.137	203.652	2.690	1.073.770
1896	128.635	360.109	104.655	141.847	2.419	902.441
1897	162.283	515.708	156.838	240.763	2.580	980.650
1898	160.936	522.368	180.827	288.734	2.514	1.099.465
1899	134.771	459.824	139.657	233.481	2.500	1.129.912
1900	121.285	389.625	190.541	274.428	2.272	1.116.107
1901	136.901	390.826	181.027	293.405	2.563	1.004.677
1902	135.615	406.794	282.138	400.906	2.651	1.067.646
1903	159.470	453.237	186.026	424.616	2.355	1.147.879

EXPORT OF LIVE-STOCK PRODUCTS

YEARS	Frozen beef		Frozen mutton		Other frozen and preserved meat and tongues	
	Tons	Value \$ gold	Tons	Value \$ gold	Tons	Value \$ gold
1894	1.67	12.400	36.486	1.864.110	2.642	391.048
1895	1.587	63.482	41.882	1.675.273	2.122	267.356
1896	2.997	119.863	45.105	1.804.205	3.288	356.492
1897	4.241	169.644	50.894	2.035.778	2.414	255.260
1898	5.867	234.681	59.833	2.393.358	3.154	313.177
1899	9.079	950.811	56.627	2.265.069	3.322	334.902
1900	24.590	2.458.957	56.412	4.512.973	3.175	415.476
1901	44.904	4.490.447	63.013	5.041.023	3.047	391.890
1902	70.018	7.001.833	80.073	6.405.804	4.729	496.078
1903	85.520	8.151.956	78.149	6.251.959	7.354	720.297

YEARS	Jerked beef		Tallow		Butter	
	Tons	Value \$ gold	Tons	Value \$ gold	Kilog.	Value \$ gold
1894	42.838	4.564.447	25.246	2.809.450	19.500	5.850
1895	55.029	4.225.419	40.588	3.807.751	494.400	123.600
1896	45.907	3.217.541	34.143	3.179.326	903.087	225.771
1897	36.238	2.466.313	31.538	2.656.048	599.711	149.928
1898	22.242	2.116.468	29.341	2.862.512	926.500	231.626
1899	19.164	2.038.413	24.150	2.205.593	1.179.496	294.874
1900	16.449	1.979.557	24.837	2.805.327	1.055.756	263.939
1901	24.296	2.879.455	33.368	3.902.715	1.510.178	377.545
1902	22.304	2.647.450	49.095	6.209.038	4.125.092	1.277.969
1903	12.991	1.542.018	36.561	4.755.579	5.330.000	2.132.056

EXPORTS OF AGRICULTURAL PRODUCTS

YEARS	Wheat		Maize		Linseed	
	Tons	Value \$ gold	Tons	Value \$ gold	Tons	Value \$ gold
1894	1.608.249	27.118.142	54.876	1.046.007	104.435	3.583.459
1895	1.010.269	19.471.652	772.318	10.193.338	276.443	8.287.112
1896	523.001	12.830.027	1.570.517	15.594.556	229.675	6.856.106
1897	101.845	3.470.351	374.942	5.478.718	162.477	4.996.288
1898	645.161	22.368.900	717.105	9.274.197	158.904	5.420.031
1899	1.713.429	38.078.343	1.116.276	13.042.983	217.713	7.402.488
1900	1.929.676	48.627.653	713.248	11.933.747	223.257	10.674.011
1901	904.289	26.240.733	1.112.290	18.887.397	338.828	16.513.263
1902	644.908	18.584.894	1.192.829	22.994.060	340.937	17.840.952
1903	1.681.327	41.323.099	2.104.384	33.147.249	593.601	21.239.894

YEARS	Sugar		Flour		Hay	
	Tons	Value \$ gold	Tons	Value \$ gold	Tons	Value \$ gold
1894	8	1.230	40.758	1.019.931	47.618	456.386
1895	84	12.549	53.935	1.882.366	71.959	432.657
1896	22.026	3.303.949	51.732	1.949.556	104.775	899.781
1897	41.734	4.382.936	41.443	2.411.719	103.700	933.716
1898	20.820	1.665.566	31.933	1.592.495	113.534	1.246.849
1899	26.701	2.136.109	59.464	1.938.281	105.598	1.158.825
1900	15.270	1.221.633	51.203	1.718.085	102.836	1.282.620
1901	49.413	3.952.998	71.742	2.711.298	95.120	961.576
1902	41.694	3.335.558	39.040	1.603.568	98.166	1.004.133
1903	30.340	2.427.190	71.980	3.128.525	95.859	1.033.244

EXPORTS OF AGRICULTURAL PRODUCTS

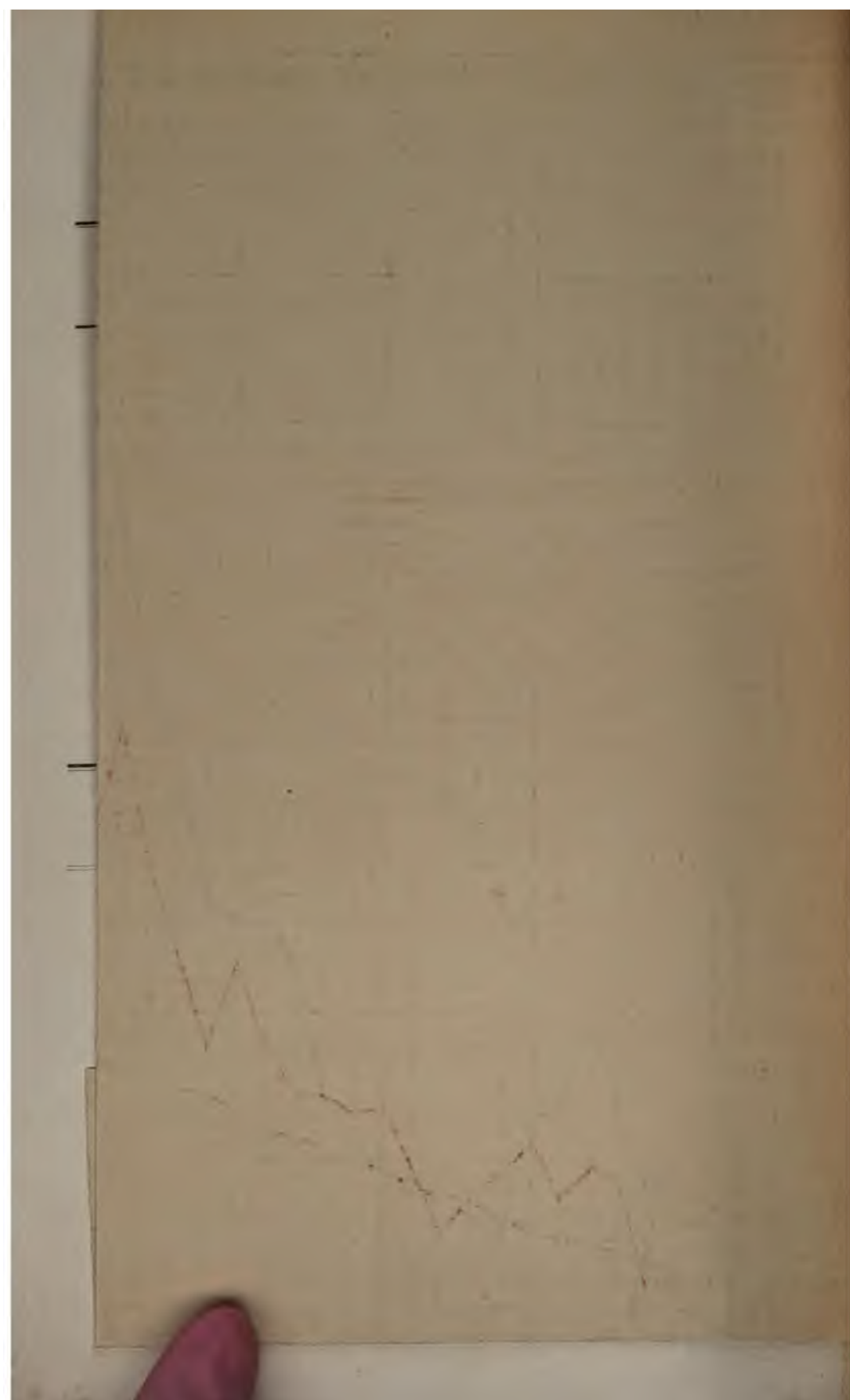
YEARS	Wheat		Maize		Linseed	
	Tons	Value \$ gold	Tons	Value \$ gold	Tons	Value \$ gold
1894	1.608.249	27.118.142	54.876	1.046.007	104.435	3.583.459
1895	1.010.269	19.471.652	772.318	10.193.338	276.443	8.287.112
1896	523.001	12.830.027	1.570.517	15.594.556	229.675	6.856.106
1897	101.845	3.470.351	374.942	5.478.718	162.477	4.996.288
1898	645.161	22.368.900	717.105	9.274.197	158.904	5.420.031
1899	1.713.429	38.078.343	1.116.276	13.042.983	217.713	7.402.488
1900	1.929.676	48.627.653	713.248	11.933.747	223.257	10.674.011
1901	904.289	26.240.733	1.112.290	18.887.397	338.828	16.513.263
1902	644.908	18.584.894	1.192.829	22.994.060	340.937	17.840.952
1903	1.681.327	41.323.099	2.104.384	33.147.249	593.601	21.239.894

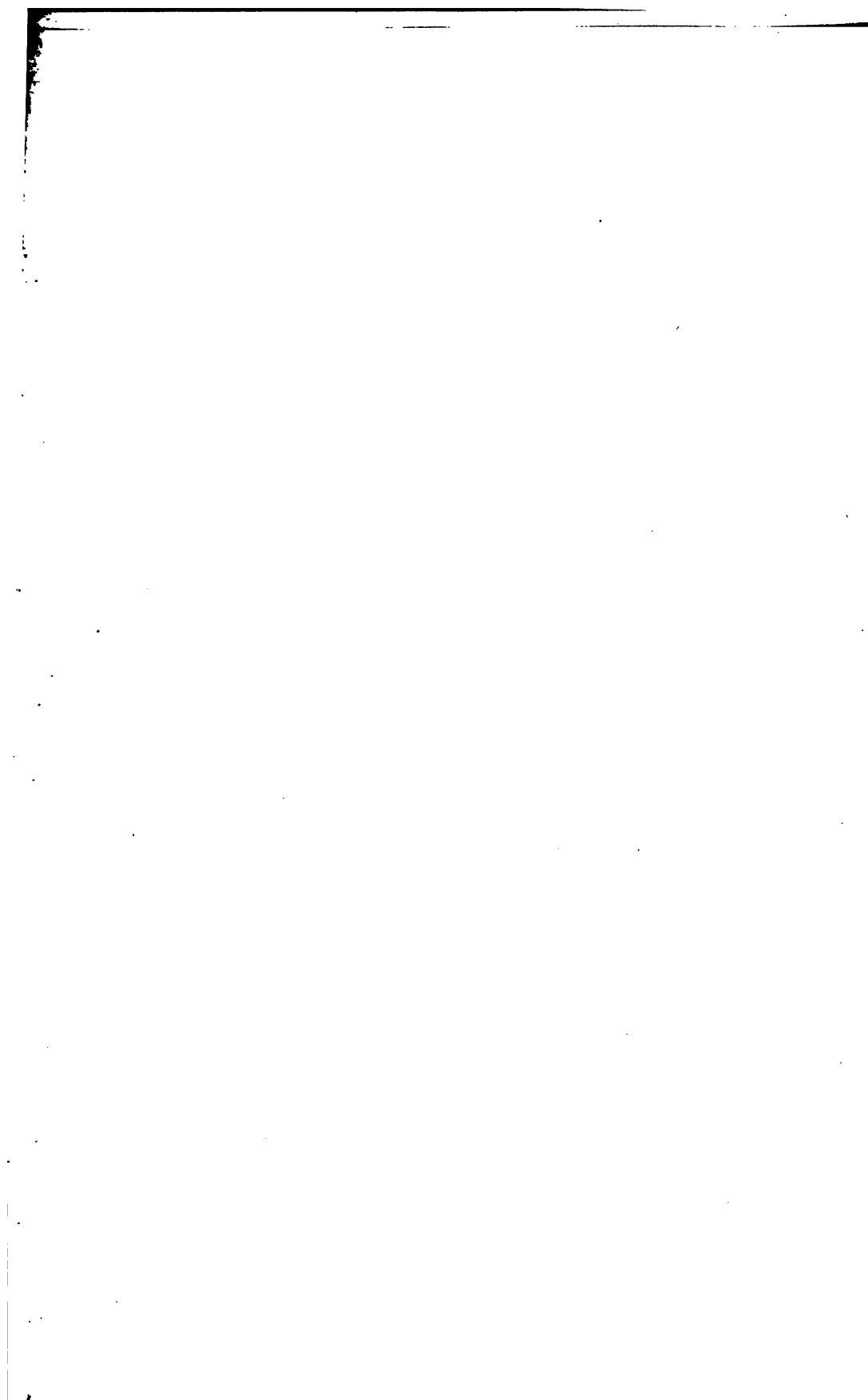
YEARS	Sugar		Flour		Hay	
	Tons	Value \$ gold	Tons	Value \$ gold	Tons	Value \$ gold
1894	8	1.230	40.758	1.019.931	47.618	456.386
1895	84	12.549	53.935	1.882.366	71.959	432.657
1896	22.026	3.303.949	51.732	1.949.556	104.775	899.781
1897	41.734	4.382.936	41.443	2.411.719	103.700	933.716
1898	20.820	1.665.566	31.933	1.592.495	113.534	1.246.849
1899	26.701	2.136.109	59.464	1.938.281	105.598	1.158.825
1900	15.270	1.221.633	51.203	1.718.085	102.836	1.282.620
1901	49.413	3.952.998	71.742	2.711.298	95.120	961.576
1902	41.694	3.335.558	39.040	1.603.568	98.166	1.004.133
1903	30.340	2.427.190	71.980	3.128.525	95.859	1.033.244

EXPORT OF LIVE-STOCK PRODUCTS

YEARS	Frozen beef		Frozen mutton		Other frozen and preserved meat and tongues	
	Tons	Value \$ gold	Tons	Value \$ gold	Tons	Value \$ gold
1894	1.67	12.400	36.486	1.864.110	2.642	391.048
1895	1.587	63.482	41.882	1.675.273	2.122	267.356
1896	2.997	119.863	45.105	1.804.205	3.288	356.492
1897	4.241	169.644	50.894	2.035.778	2.414	255.260
1898	5.867	234.681	59.833	2.393.358	3.154	313.177
1899	9.079	950.811	56.627	2.265.069	3.322	334.902
1900	24.590	2.458.957	56.412	4.512.973	3.175	415.476
1901	44.904	4.490.447	63.013	5.041.023	3.047	391.890
1902	70.018	7.001.833	80.073	6.405.804	4.729	496.078
1903	85.520	8.151.956	78.149	6.251.959	7.354	720.297

YEARS	Jerked beef		Tallow		Butter	
	Tons	Value \$ gold	Tons	Value \$ gold	Kilog.	Value \$ gold
1894	42.838	4.564.447	25.246	2.809.450	19.500	5.850
1895	55.089	4.225.419	40.588	3.807.751	494.400	123.600
1896	45.907	3.217.541	34.143	3.179.326	903.087	225.771
1897	36.238	2.466.313	31.538	2.656.448	599.711	149.928
1898	22.242	2.116.468	29.341	2.862.512	926.500	231.626
1899	19.164	2.038.413	24.150	2.205.593	1.179.496	294.874
1900	16.449	1.979.557	24.837	2.805.327	1.055.756	263.939
1901	24.296	2.879.455	33.368	3.902.715	1.510.178	377.545
1902	22.304	2.647.450	49.095	6.209.038	4.125.092	1.277.969
1903	12.991	1.542.018	36.561	4.755.579	5.330.000	2.132.056

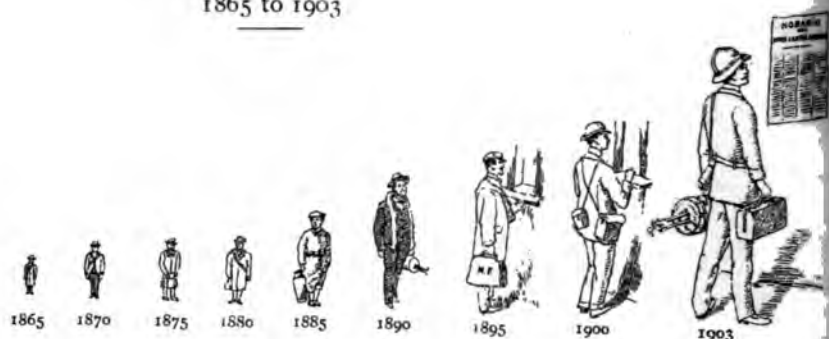




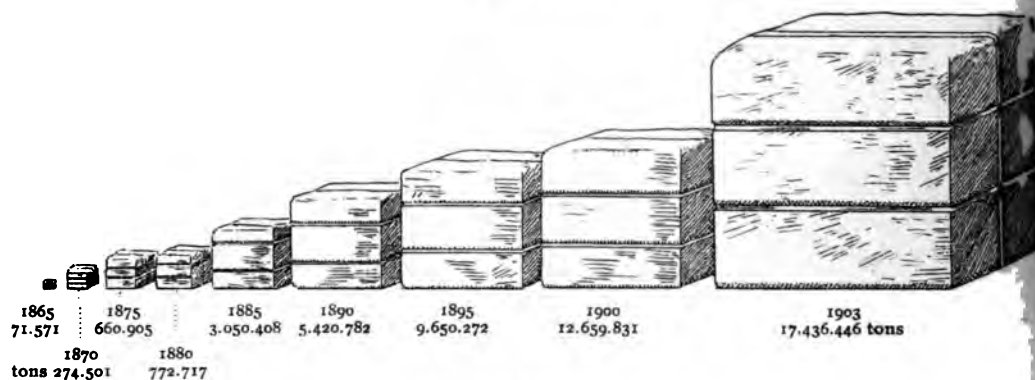
THE RAILWAYS OF THE ARGENTINE REPUBLIC

TRAFFIC & GROSS INCOME RETURNS

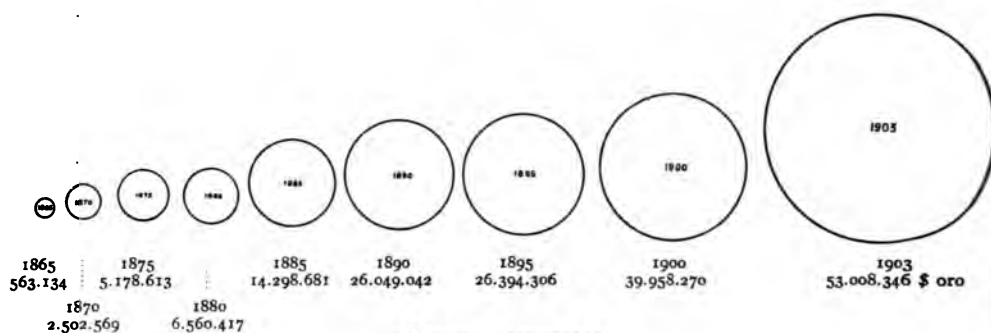
1865 to 1903



PASSENGERS



CARGO



GROSS INCOME



Southern Railway Station in Buenos Aires.

Railways.

THE DEVELOPMENT OF THE RAILWAYS IS SHOWN
IN THE FOLLOWING TABLES.

YEARS	Extent of lines in kilometers	Capital \$ gold	Passengers	Cargo Tons	Receipts \$ gold	Expendi- ture \$ gold
1857	10	285.108	56.190	2 257	19.185	12.448
1865	249	5.379.898	747.684	71.571	563.134	438.961
1870	732	18.835.703	1.948.585	274.501	2.502.569	1.356.252
1875	1.956	40.990.210	2.597.103	660.905	5.178.613	3.009.707
1880	2.516	62.964.486	2.751.570	772.717	6.560.417	3.072.185
1885	4.502	121.705.281	5.587.299	3.050.408	14.298.681	8.616.201
1890	9.432	311.102.691	10.069.606	5.420.782	26.049.042	17.585.406
1895	14.119	485.360.121	14.573.037	9.650.272	26.394.306	13.846.464
1900	16.563	526.616.661	18.296.422	12.659.831	39.958.270	22.634.006
1902	17.377	560.946.206	19.815.439	14.030.340	41.796.434	21.857.895
* 1903	18.294	560.946.206	20.642.180	17.436.446	53.008.346	26.716.994

* Approximate figures.



Western Railway Station in Buenos Aires

SUMMARY OF THE WORKING APPROXIMATE

I	2	3	4	5	6	7	8	9	10	11	12
RAILWAYS		RAILS		ROLLING STOCK							
		Gauge	Extent	Engines	COACHES		VANS		WAGONS		Special Vehicles
					No.	Capacity Seats	No.	Capacity	No.	Capacity	
	State	Meters	Kilom.	No.	No.	No.	Tons	Tons	No.	No.	No.
1	Audine	1,676	339	10	16	916	16	152	504	7,100	3
2	Central Northern	1,000	1,122	85	51	1,734	43	524	1,418	17,707	74
3	North Argentine	"	563	15	26	648	13	97	250	3,454	87
Total and average		—	2,024	118	93	3,298	72	773	2,172	28,261	268
Private											
4	Southern Buenos Aires..	1,676	3,980	290	344	19,309	261	1,490	9,533	116,904	426
5	Western Buenos Aires...	"	1,197	129	136	8,580	148	1,720	3,711	56,859	—
6	Bs. As. and Rosario	"	1,097	146	188	12,662	154	1,641	4,982	59,486	111
7	Central Argentine	"	1,785	162	208	11,992	109	1,570	5,199	83,500	76
8	Bs. As. and Pacific	"	1,261	100	80	3,934	60	300	2,523	34,766	15
9	Argentine Great Western	"	714	90	54	3,646	37	196	1,258	16,425	56
10	Bahia Blanca and N. W.	"	385	20	8	466	8	80	286	5,640	3
11	East Argentine	1,435	161	14	21	522	8	50	279	2,122	5
12	Northeast Argentine	"	662	36	42	1,131	16	80	340	3,816	7
13	Entre Rios	"	758	30	38	2,056	19	75	492	10,536	—
14	Province of Santa Fé	1,000	1,392	41	112	3,657	47	354	1,852	19,759	48
15	Centr. Córdoba (N. Sec.)	"	885	80	76	3,267	56	424	1,606	18,276	74
16	" " (E. " ")	"	210	13	20	636	12	120	654	7,194	—
17	Córdoba and Rosario	"	289	29	55	3,020	32	256	654	6,998	21
18	Northwest Argentine	"	196	20	14	709	8	68	520	7,800	2
19	Córdoba and Northwest	"	153	9	12	362	4	40	86	1,032	—
20	Transandine	"	175	14	10	324	10	96	130	780	8
21	Central Chubut	"	70	2	6	197	3	18	57	344	—
Total and average...		—	16,270	1,265	1,424	76,470	998	8,628	34,162	452,237	832
General total and average		—	18,254	1,383	1,517	79,768	1,070	9,401	36,334	480,498	958

LINES IN CONSTRUCTION

State:		
Central Northern - Extension to Bolivia	Kilometers	286
Branch from Perico to Ledesma	"	57
Branch from Apatuya to Chaco	"	200
Audine - Extension from La Toma to Dolores	"	146
North Argentine - Cable line to Famatina	"	34
Branch from San Juan to Serrezuela	"	304
Branch from Chumbicha to La Rioja, Andalgalá and Tinogasta	"	425

OF THE RAILWAYS IN 1903

RETURNS

13	14	15	16	17	18	19	20	21	22	23
TRAFFIC		WORKING RESULTS (TOTAL)								
Passen- gers	Cargo	Capital	Receipts	Expenditure	Per kilometer of line			Profit	Loss	Interest on capital
					Capital	Re- ceipts	Expen- diture			
No.	Tons	GOLD DOLLARS								o/o
83.761 238.803 28.093	459.035 606.284 51.548	8.655.607 33.243.838 13.059.337	862.194 1.326.586 175.919	351.493 886.092 171.283	25.530 29.629 23.196	2.543 1.182 312	1.037 790 304	510.701 440.494 4.636	— — —	5.90 1.32 0.03
379.597	1.116.867	54.958.782	2.364.699	1.408.868	27.153	1.168	696	955.831	—	1.74
6.329.240 3.239.695 3.437.797 3.991.395 941.045 498.078 31.815 23.330 54.342 130.273 302.456 204.645 63.624 73.941 231.255 38.793 10.374 1.555	3.050.746 2.203.464 2.403.560 3.615.184 1.225.533 439.193 75.989 81.443 103.028 309.780 782.470 559.931 404.920 468.560 545.900 29.684 15.934 4.260	126.165.967 38.780.658 60.172.096 66.034.036 42.104.241 23.766.206 8.316.000 5.571.720 26.131.105 16.174.040 31.738.624 23.398.422 6.451.200 10.744.408 5.401.640 6.618.528 7.410.473 1.008.000	12.775.170 6.127.752 7.226.971 9.675.968 4.273.075 2.783.199 298.932 239.928 280.050 648.371 2.664.808 1.359.907 664.649 931.309 467.060 84.535 122.188 19.775	6.301.005 3.105.475 3.841.617 3.923.299 1.917.049 1.412.712 260.515 171.092 267.510 456.240 1.383.032 996.387 264.904 528.037 260.496 77.084 126.291 16.381	31.700 32.398 30.131 36.994 33.389 33.286 21.600 34.607 39.473 21.338 22.801 26.439 30.720 37.178 27.559 43.258 42.345 14.400	3.210 5.119 3.619 5.421 3.388 3.898 776 1.490 423 855 1.914 1.537 3.165 3.222 2.383 552 698 282	1.583 2.594 1.923 2.198 1.520 1.977 677 1.063 404 602 993 1.126 1.261 1.827 1.329 504 722 234	6.474.165 3.022.277 3.385.354 5.752.669 2.356.026 1.371.487 38.417 68.836 12.540 192.131 1.281.776 363.520 399.745 403.272 206.564 7.451 — 3.394	— —	

OR ABOUT TO BE COMMENCED

<i>Private:</i>			
Southern - High level lines to Sola and Gral. Mitre	Kilometers	12	
Branch from Loberia to Tres Arroyos	"	140	
Western - Low level access	"	3	
Branch from La Flora to 5th Meridian	"	90	
Branch from Timoté to Olascoaga	"	130	
Central Argentine - Branch to Río Cuarto	"	40	
Prov. Santa Fé - Branch from San Francisco to Villa María	"	162	
Chacabuco to Sargento Cabral (Lloyd concession)	"	500	
Electric Tramway from the Federal Capital to Conchitas	"	28	



South Basin (Port of Buenos Aires)

Table showing movement in the ports of the Argentine Republic
in 1901-1903.

Entries		Steamers		Sailers		Total	
		No.	Tons	No.	Tons	No.	Tons
1901	Over-sea	1 865	3 534 357.21	406	288 616.84	2 271	3 822 974.05
	Coasting & Fluvial	21 169	7 143 085.70	27 520	1 335 317.30	48 689	8 478 403.00
	Total...	23 034	10 677 442.91	27 926	1 623 934.14	50 960	12 301 377.05
1902	Over-sea	1 722	3 457 342.78	362	283 512.70	2 084	3 740 855.48
	Coasting & Fluvial	20 177	7 947 586.88	27 134	1 264 704.88	47 311	9 212 291.76
	Total...	21 899	11 404 929.66	27 496	1 548 217.58	49 395	12 953 147.24
1903	Over-sea	2 445	4 801 246.71	360	315 094.70	2 805	5 116 341.41
	Coasting & Fluvial	22 351	9 375 445.63	28 285	1 296 932.69	50 636	10 172 378.32
	Total...	24 796	14 176 692.34	28 645	1 612 027.39	53 441	15 788 719.73
Sailings							
1901	Over-sea	2 078	3 960 944.24	349	251 083.01	2 427	4 212 027.25
	Coasting & Fluvial	21 211	7 393 372.05	27 172	1 356 925.55	48 383	8 750 297.60
	Total...	23 289	11 354 316.29	27 521	1 608 008.56	50 810	12 962 324.85
1902	Over-sea	1 882	3 736 157.95	314	237 623.27	2 196	3 973 781.22
	Coasting & Fluvial	19 991	7 670 684.83	26 744	1 283 965.05	46 735	8 954 649.05
	Total...	21 873	11 406 842.78	27 058	1 521 588.32	48 931	12 928 431.10
1903	Over-sea	2 621	5 203 859.82	364	333 925.61	2 985	5 537 785.43
	Coasting & Fluvial	22 096	8 872 039.49	27 971	1 277 926.60	50 067	10 149 966.09
	Total...	24 717	14 075 899.31	28 338	1 611 852.21	53 052	15 687 751.52



Lake La Plata — Territory of Chubut.

Patent Law.

The law in force regarding patents for inventions, decreed and disposed by the Executive on 11th October 1864, is based on the following general principles:

- I. — Conciliation of the rights of the inventor with the principle of the freedom of industry, as set forth in the National Constitution, for the prevention of monopolies prejudicial to the interest of the commonwealth.
- II. — Prior examination by a competent administration, as to the originality of the invention.
- III. — Limited duration of privilege, with the object of assisting new inventions and the improvement of the original invention.
- IV. — Admission of improvements introduced by third parties in inventions already patented, conciliating the interests of the first inventor with those of the commonwealth and of the author of the improvement.
- V. — Provisional protection to those occupied in working out an invention or discovery, so as to avoid the injury to which inventors are so often exposed whilst engaged in studying and experimenting with same.

VI. — Protection to inventors abroad, without subjecting them to peremptory terms and to international reciprocity, as occurs in many countries, especially in Europe.

The respective department had received up to 31st December 1903 5,625 petitions for patent rights on inventions, of which it conceded 4,800.

Of the total petitions sent in, 45 per cent., more or less, were presented by inventors abroad.

This proportion has decreased considerably in recent years.

The inventions patented, are connected principally with agricultural and manufacturing industries, which have as a foundation the treatment of the natural riches of the country.

The fees for the concession of patent rights, are \$ 82, 206 and 360 for terms of 5, 10 and 15 years respectively. Half of the amount is payable at once and the balance in progressive annual sums. Cash payment in advance of full amount of fee, is allowed a discount of 6 per cent per annum, which reduces the above fees to:

Patent for	5 years	\$	76.—	c/l.
»	»	10	»	172.—
»	»	15	»	267.—



Mayo Square and Avenue

Trade, Commercial and Agricultural Marks

The law of marks or brands now in force, was sanctioned on the 23rd of November 1905 and reformed the previous law of the 19th August 1876, whose principal dispositions it was found necessary to modify so as to be in keeping with the requirements of the times.

The penalties against falsification or unlawful use of marks, contained in the act, are severe and contribute to insure the right acquired through registration.

From the promulgation of the first act (1876) up to 31st December 1903, the official registrars have inscribed 12,500 marks, of which 8,800 were entered before the new law (November 1900) was put into force. The annual average of marks registered since that date amounts to 1,233.

The registration of a mark incurs the payment of a fiscal fee of \$ 50 currency.



Zoological Garden
in Buenos Aires.



General Post-office, Buenos Aires

Postal and Telegraphic.

The postal and telegraphic service is carried on by the same department. The working and inspection of the services is effected through 24 district offices in the following order :

I. The General Post : Federal Capital, Buenos Aires; — II. La Plata; — III. Mercedes (P. Bs. As.); — IV. Rosario; — V. Santa Fé; — VI. Córdoba; — VII. San Luis; — VIII. Mendoza; — IX. San Juan; — X. Santiago del Estero; — XI. Rio Cuarto (P. Córdoba); — XII. Paraná; — XIII. Corrientes; — XIV. Uruguay (P. Entre Rios); — XV. Concordia; — XVI. Tucuman; — XVII. Jujuy; — XVIII. Salta; — XIX. Catamarca; — XX. La Rioja; — XXI. Bahia Blanca; — XXII. Fort Gen. Roca (T. Rio Negro); — XXIII. Rawson (T. Chubut); — XXIV. Rio Gallegos (T. Santa Cruz).

As the Argentine Republic is a country of great extent with a sparse population, the working of these services is proportionately expanded and costly but, nevertheless, the internal postage is uniform as are also the charges for telegrams.

As regards the development of the services, an idea may be gathered from the following detail of the time employed in the transportation of the correspondence from Buenos Aires to the several capitals of provinces, National territories and other places in the interior of the Republic.

From Buenos Aires: to La Plata, 1 h. 10 m.; — to Mercedes (P. Bs. As.), 2 h. 25 m.; — to Rosario, 7 h. 10 m.; — to Santa Fé, 14 h. 45 m.; — to Córdoba, 18 h. 35 m.; — to San Luis, 16 h. 50 m.; — to Mendoza, 24 h.; — to San Juan, 1 d., 4 h. 45 m.; — to Santiago del Estero, 1 d., 5 h. 20 m.; — to Rio Cuarto, 18 h. 25 m.; — to Paraná, 17 h. 45 m.; — to Corrientes, 1 d. 22 h. 30 m.; — to Uruguay, 18 h.; — to Concordia, 1 d. 4 h.; — to Tucumán, 1 d. 9 h.; — to Jujuy, 2 d. 7 h. 50 m.; — to Salta, 2 d. 2 h. 5 m.; — to Catamarca, 1 d. 17 h. 15 m.; — to La Rioja, 1 d. 14 h. 44 m.; to Bahía Blanca, 14 h. 40 m.; — to Fort G. Roca, 1 d. 12 h. 40 m.; — to Rawson, 4 d.; — to Viedma (T. Rio Negro), 3 d. 23 h. 30 m.; — to Chos Malal, (T. Neuquén), 11 d. 12 h. 30 m.; — to Rio Gallegos, 12 d. to 14 d.; — to Ushuaia, (T. Tierra del Fuego), 30 d.; — to Gen. Lagos. (T. Pampa), 15 h.; — to Posadas (T. Misiones), 2 d. 21 h.; — to Formosa, 6 d., — to Resistencia (T. Chaco), 2. 5 h. 30 m.; — to San Antonio de los Cobres (T. de los Andes), 9 d. 16 h.

The number of Post-offices is 1808, distributed as follows:

Federal Capital 43; — P. Buenos Aires, 487; — P. Santa Fé, 280; — P. Córdoba, 255; — P. San Luis, 62; — P. Mendoza, 64; — P. San Juan, 30; — P. Santiago del Estero, 68; — P. Entre Ríos, 98; — P. Corrientes, 64; — P. Tucumán, 75; — P. Jujuy, 25; — P. Salta, 51; — P. Catamarca, 40; — P. Rioja 36; — Northern Territories, 30; — Southern T., 100; — New offices, 84.

The number of effective employees in 1903 was 6,170.

The postal movement in 1902 amounted to 347,803,442 letters and other correspondence. In 1903 it had increased to 381,542,056.

For the transportation of correspondence, etc., during 1903, no less than 116,428 mails were despatched, the distance covered being 17,101,740 kilometers, divided as follows:

Rail	63,883 mails	14,012,439 kilometers
Stage-coaches	29,938	1,341,415
Express-riders	20,622	1,351,222
Steamers	1,985	396,664

The average daily despatch of telegrams by the National lines amounts to about 5,500 from the General Post-office and the head-offices of the other 23 districts, the daily average of words being 115,000 and the mean time taken in delivery, for those sent out, 12 min. 41 sec. and 30 min. 52 sec. for those received.

Telegraph offices of the National lines.....	544
Offices of telegraph companies adhering to the Convention...	335
Total offices of the Argentine Telegraphic Convention.....	879
Offices of other lines having same tariff.....	791
Offices not in the Convention having a different tariff.....	60
General total.....	1,730

National Telegraph lines	kilometers	21,885	conducting wires, kilometers	59,875
Telegraphic lines of National Railways	"	1,971	"	4,039
do of the Province of Buenos Aires	"	4,895	"	7,215
do " Entre Rios	"	1,096	"	1,924
do and cables of Companies	"	19,041	"	54,070
Total telegraphic lines in the Republic	"	48,888	"	127,123

The total of the telegraphic lines in the Republic, therefore, amounts to 48,888 kilometers with 127,123 kilometers of conducting wires. Amongst these there is one of a continuous length of 5,527 kilometers, extending from La Quiaca in the extreme North of the Republic to Cape Virgins in the extreme South, the furthest point to which telegraphic communication at present extends. The lines in the Southern territories have a length of 4,425 kilometers, of which 1,469 are of old and 2,596 of recent construction.

The length of some of the principal lines is as follows:

Buenos Aires to La Quiaca	2,121 kilometers
do Cape Virgins	3,406 "
do Chos Malal	1,882 "
do Posadas	1,172 "
do Vinchina	1,398 "
do Formosa	1,446 "
do Cuadro Nacional (Mendoza)	1,481 "
do Nahuel Huapí and 16th October Colony	2,051 "
do San Carlos (Salta)	1,711 "

All these lines belong to the National Government and their extent gives an idea of the development of the service in the vast territory of Argentina and, also, of the expenditure required for their maintenance.



Harberton, Tierra del Fuego

POSTAL TARIFF

INTERIOR

URBAN AND INTERNAL CORRESPONDENCE

Letters: each 15 grammes or fraction thereof	5	cts.	currency
Post cards and letter cards	4	»	»
Single Newspapers: each 60 grammes or fraction thereof	12	»	»
Newspapers in parcels: each 50 grammes or fraction there- of on total weight of parcel	12	»	»
Magazines and Reviews: each 60 gr. or fraction thereof	1	»	»
Other printed matter: each 100 gr. or fraction thereof . . .	2	»	»
Business papers: each 100 gr. or fraction thereof	4	»	»
Samples: for the first 100 grammes	5	»	»
do for each additional 50 gr. or fraction thereof	1	»	»

REGISTERED LETTERS, INSURANCE ON VALUE DECLARED AND EXPRESS DELIVERY

The charges on above services, in addition to usual postage, are:			
Registration of each letter	25	cts.	currency
Acknowledgment of receipt	10	»	»
Insurance on declared value, \$ 1 per each \$ 100 or fraction thereof and a fixed charge of	12	»	»

Acknowledgment of receipt	15	cts. currency
Express delivery per letter for the interior . . .	25	» »
do do Urban service . .	20	» »

PRIVATE LETTER BOXES IN POST OFFICE

Ordinary boxes, per annum.	\$ 20	currency
do per 6 months.	» 10	»
Special service boxes, per annum	» 30	»

LATE LETTERS

Late letters will be forwarded on payment of double postage.

INLAND AND TELEGRAPHIC MONEY ORDERS

Each fifty dollars or fraction thereof 50 cts. currency
Telegraphic orders pay, in addition to above rate, one dollar currency, irrespective of amount.

Acknowledgment of payment of telegraphic money

order 70 cts. currency

Acknowledgment of payment of inland money order 20 » »

POSTAL ORDERS

Postal orders are issued for inland service for the following fixed sums: \$ 10, 5, 4, 3, 2, 1 and for 50 cents, with a charge of 5 cents for each order up to \$ 5 and of 10 cents on those of \$ 10.

These orders are issued either to order or to bearer without endorsement.

These last cannot be sent by post except in a registered letter.

Endorsed orders that have been lost will be refunded to the taker after the expiration of sixty days from the date of issue.

PARCELS

Parcels not exceeding 3 kilogrammes in weight . \$ 1,00 currency
do exceeding 3 kilogs. and under 5 kilogs. . » 1,50 »

Inland parcels are received and forwarded by all post-offices in the Republic.

The maximum weight must not exceed 5 kilogrammes.

Maximum length 60 centimeters.

Maximum length and girth combined 20 decimeter cubic.

FOREIGN

TO ALL COUNTRIES OF THE POSTAL UNION

Letters—each 15 grammes or fraction thereof . . .	15	cts. currency
Post-cards—single	6	» »
do —prepaid answer	12	» »
Business papers—first 50 grammes or fraction thereof	12	» »
do —each succeeding 50 grammes or fraction thereof	3	» »
Samples—first 50 grammes or fraction thereof . . .	6	» »
do —each succeeding 50 grammes or fraction thereof	3	» »
Newspapers and other printed matter—each 50 gr. or fraction thereof	3	» »
Registered letters in addition to usual postage . .	12	» »
do do with acknowledgment of receipt	24	» »
BRAZIL, CHILI, URUGUAY AND BOLIVIA		
Letters—each 15 grammes or fraction thereof . . .	10	cts. currency
All other matter as per tariff of Postal Union countries.		

LEGAL VALUE OF FOREIGN COINS

\$ Gold value at par.

Germany..... 20 Marcos.....	4.94	Hispano American Ounce.....	16.275
Brazil..... 20,000 Reis.....	11.32	France..... 20 Francs.....	4.00
Chilli..... Condor.....	9.455	Belgium, Switzerland 20 Francs.....	4.00
Spain..... 25 Pesetas.....	5.00	England..... Sovereign.....	5.04
Spain..... Doblón.....	5.166	Perú..... 5 Soles.....	5.00
U. States..... Eagle.....	10.364	Italy..... 20 Liras.....	4.00

\$ 1,000 gold of Argentina is equal to \$ 923.84 gold of Uruguay.

\$ 1,000 gold of Uruguay is equal to \$ 1,072 gold of Argentina.

The currency of the country is paper, the annual average price of which as compared with gold has been in the last three years at about 232 to 227.27 p. cent., the last being the actual quotation.

LINEAL MEASURE

<i>Metric system</i>	<i>Equivalent in English measures</i>	<i>English measures</i>	<i>Equivalent in the metric system</i>
Meter.....	39.371 Inches	Inch.....	0.025 meter
	3.281 Feet	(12 inches) Foot.....	0.305 meter
	1.094 Yards	(3 Feet) Yard.....	0.914 meter
		(220 Yards) Furlong.....	201.164 meter
(1000 meter) kilometer..	1093.633 Yards	(1760 Yards) Mile.....	1609.314 meter
	4.971 Furlongs		1.609 kilometers
	0.621 Mile		

SQUARE MEASURE

<i>Metric system, equivalent in English measures</i>	<i>English measures, equivalent in the metric system</i>
(Square met) centiare = 1550.059 Square inches.	Square inch: = 6.451 square centimeters.
Centiare: = 10.764 Square Feet.	(144 square inches) sq. foot: = 0.993 sq. mets.
Centiare: = 1.196 Square Yards.	(9 square feet) sq. yard: = 0.836 sq. mets.
10,000 centiares) Hectare: = 2.471 Acres.	(4840 square yards) Acre: = 0.405 Hectares.
1000 Hectares: = 3.661 Square Miles.	(640 Acres) square Mile: = 258.990 Hectares.
Square Kilometer: = 0.386 Square Miles.	Square mile: = 2.590 square Kilometers.
Kilometric league 2,500 hs. = 6,177 acres.	

MEASURES OF CAPACITY, DRY

<i>Metric system</i>	<i>Equivalent in English measures</i>	<i>English measures</i>	<i>Equivalent in the metric system</i>
Liter.....	1.761 Pints	Pint.....	0.568 Liter
10 Liters.....	2.200 Gallon	(2 Pints) Quart.....	1.136 Liter
(100 liters) Hectoliter.....	22.009 Gallon	(4 Quarts) Gallon.....	4.543 Liter
Hectoliter.....	2.751 Bushels	(2 Gallons) Peck.....	9.086 Liter
Hectoliter.....	0.344 Quarter	(8 Gallons) Bushel.....	36.348 Liter
		(8 Bushels) Quarter.....	2.908 Hectoliters

MEASURES OF CAPACITY, LIQUIDS

<i>Metric system</i>	<i>Equivalent in English measures</i>	<i>English measures</i>	<i>Equivalent in the metric system</i>
Liter.....	1.761 Pints	Pint.....	0.568 Liter
Liter.....	0.880 Quarts	(2 Pints) Quart.....	1.136 Liter
Liter.....	0.220 Gallon	(4 Quarts) Gallon.....	4.543 Liter
100 liters) Hectoliter.....	22.010 Gallon	100 Gallons.....	454.35 Liter

WEIGHTS

<i>Metric system</i>	<i>Equivalent in English weights</i>	<i>English weights</i>	<i>Equivalent in Metric system</i>
Kilo.....	2.205 Pounds	Pound.....	0.454 Kilo
100 Kilos.....	1.968 Cwts	Cwt.....	50.802 Kilo
1000 Kilos.....	0.984 Ton	Ton.....	1016.043 Kilo



Light House at Mar del Plata.—Province of Buenos Aires.

Foreign Diplomatic Corps and Consular Body in the Argentine Republic.

UNITED KINGDOM

ENVOY EXTRAORDINARY AND MINISTER PLENIPOTENTIARY

William Henry Doveton Haggard, C. B.

CONSULS

Buenos Aires, with jurisdiction throughout the Republic, with exception of the provinces of Santa Fé, Córdoba, Corrientes and Entre Rios *Alexander Carnegie Ross, C. B.*

Rosario, with jurisdiction in the provinces of Santa Fé, Córdoba, Corrientes and Entre Rios *Hugh M. H. Mallet*

VICE-CONSULS

Buenos Aires	<i>Philip Ernest Davies</i>
Bahia Blanca	<i>Charles Clugston Cumming</i>
Là Plata	<i>Edward Thomas Puleston</i>
San Nicolás	<i>George R. W. Tucker</i>
Campana	<i>Robert MacLaren</i>
Rosario	<i>Alexander Stanley Nolan</i>
Villa Constitución	<i>Frank W. Darch</i>
Paraná	<i>Follett Holt</i>
Córdoba	<i>Duncan M. Munro</i>
Concordia	<i>Oliver Budge</i>

PRO-CONSUL

Paraná *Gerard Otway Batt*

CONSULAR-AGENT

Gallegos *James McCulloch*

UNITED STATES

ENVOY EXTRAORDINARY AND MINISTER PLENIPOTENT

Hon. Arthur M. Beaupré

CONSULS

Buenos Aires. *Daniel Meyer*
Rosario *James M. Ayers*

VICE-CONSULS

Buenos Aires. *Walter F. Walke*
Rosario *Thomas L. Page*
Córdoba *John M. Thome*

CONSULAR-AGENT

Bahia Blanca *Walter J. Jones.*



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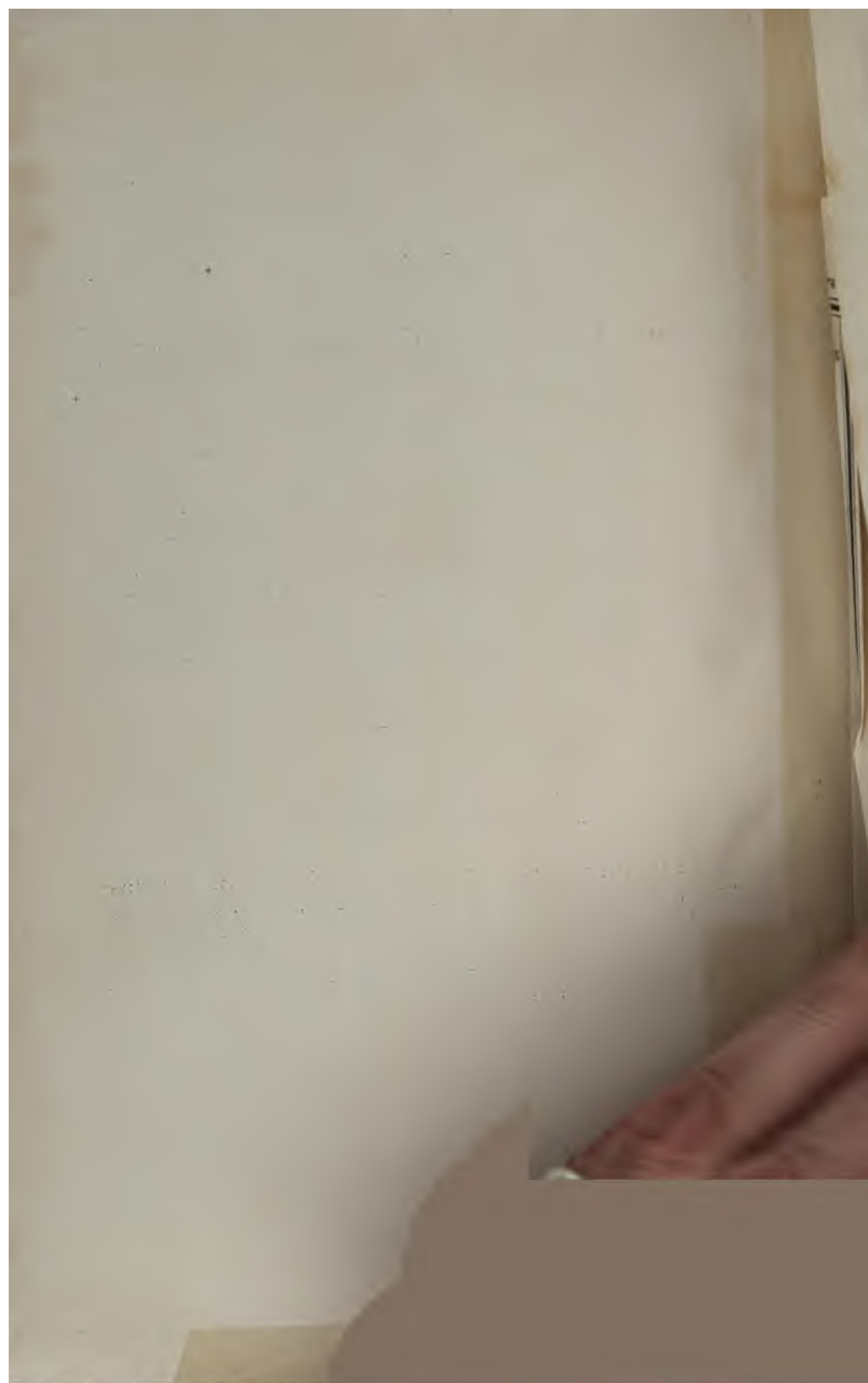
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E R R A T A

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»	38	»	Magallan Street	»	Magellan Strait
»	42 line 22	»	20	»	80
»	99	»	3	»	3,000
»	103	»	19	»	294,958
»	111	»	8	»	112
»	117	»	1	»	Livestock
»	119	»	10	»	363,141
»	120	»	7	»	532,001
»	120	»	7	»	15,994,556
»	124	»	14	»	15,288,719,73
»	124	»	18	»	27,521
»	124	»	21	»	12,928,430,27

NOTICE TO IMMIGRANTS

Persons desirous of establishing themselves in the Argentine Republic are hereby informed that there are greater probabilities of success for farmers and stockmen of practical experience in rural industry or in others connected with it, and also for tradesmen, etc: if they possess some amount of capital and are not burthened by families with many members unable to work.



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